

# CURRICULUM VITAE

## **Dr. NilimaKarmakar**

### Email Address

Nilimanau13@gmail.com

Dynamic, hardworking science professional with expertise in biochemistry, plant physiology and agriculture.

### Education

**2006-2012: Ph.D.** Agricultural Biochemistry, Bidhan Chandra KrishiViswavidyalaya, Mohanpur, West Bengal, India.

**2004-2006: M.Sc.** Agricultural Biochemistry, Bidhan Chandra KrishiViswavidyalaya, Mohanpur, West Bengal, India.

**2000-2004: B.Sc.** Agriculture (Honours), (Biochemistry and Genetics), VishwaBharati, West Bengal, India.

### Research Experience

**Feb. 2013 – till date: Assistant Professor**(Biochemistry) at the Department of Soil Science and Agricultural Chemistry, N. M. College of Agriculture, Navsari Agricultural University, Navsari, Gujarat, India; working on the waterlogging tolerance of brinjal (*Solanum melongena*).

**2006–2012: Ph.D. student** in the Bidhan Chandra KrishiViswavidyalaya, Mohanpur, West Bengal, India. Project studying the effect of vermi-compost and micronutrients on biochemical and chemical attributes on fenugreek (*Trigonellafoenumgraecum* L.).

**Ph.D. Thesis:**“Interacting influence of vermicompost and micronutrient on biochemical and chemical attributes of fenugreek *Trigonellafoenum -graecum* L.” (2012).

**2004-2006: M.Sc. student** in the Bidhan Chandra KrishiViswavidyalaya, Mohanpur, West Bengal, India. **M.Sc. Thesis:**“Inheritance of Molecular Markers Related to Some Biochemical Parameters in Rice” (2006).

### Teaching Experience

**Feb. 2013- current: Assistant Professor** (Biochemistry) in Department of Soil Science and Agricultural Chemistry, Navsari Agricultural University, Gujarat. **Students graduated:** 2 (M.Sc.), 1 Ph.D. (Co-supervisor). **Current students:** 2 (M.Sc.).

**2007-2011 (Except 2010): Part time teacher** in Department of Agricultural Biochemistry, Bidhan Chandra KrishiViswavidyalaya, Mohanpur, West Bengal, India.

### **Professional Training and Qualifications**

- **5th - 25th September, 2015:** I.C.A.R. sponsored 21 days' Summer school on “**Novel Genomic Tools and Modern Breeding Approaches for Enhancing Productivity and Nutritional Quality of Pulse Crops**” ICAR-IIPR, Kanpur, Uttar Pradesh, India.
- National Eligibility Test (NET): Qualified in 2008. Test conducted by I.C.A.R. in the Field of Plant Biochemistry & Plant Physiology.

### **Laboratory techniques known:**

- UV-Vis spectrophotometry
- Centrifugation
- HPLC
- PCR, Reverse transcriptase PCR
- Gel electrophoresis
- Primer Designing
- DNA and RNA isolation
- Gene Cloning through C-DNA Library Formation
- DNA Finger Printing

### **Honors & Awards**

- **Second Prize in poster presentation** awarded by Indian Society for Plant Physiology during the national Conference November 5 – 7, 2009 held at Assam Agriculture University, Jorhat.
- **First prize in poster presentation** in “International Symposium on Minor Fruits and Medicinal Plants For Health And Ecological Security.” Organized by Bidhan Chandra KrishiViswavidyalaya.
- **Selected as best speaker** in “Fifth International Botanical Conference.” Organised by Bangladesh Botanical Society, University of Dhaka, Bangladesh. (*Oral presentation*).
- Nominee of **DST International Travel Scheme** for Young Scientist for the presentation of paper in the “**21<sup>st</sup> International Pepper Conference**” University of Florida, USA.

### **Peer Reviewed Publications**

- Bandopadhyay, P.K., **Karmakar N.**, Shil, S. and Chakravarty, A. (2009). Retention of wheat seed (*Triticumaestivum* L.) viability under storage and its invigoration by herbal and pharmaceutical treatments, *J. Botan. Soc.Bengal* ,**63** (1): 19-24.
  
- Shil, S., P.K. Bandopadhyay and **Karmakar N.** (2011).Inhibition of Cadmium on Chlorophyll Content and Chlorophyllase Activity in Wheat (*Triticumaestivum* L.) Varieties and Alleviation of Cadmium Stress by Micronutrients and Organic Acids. *Indian Agriculturist***55** (3&4): 139-143.
  
- **Karmakar, N.**, Chakravarty,A., Bhattacharyya, S. and Das, P.K. (2010). Comparison of Indian Aromatic rice and their segregants; DNA finger printing through SSR markers, *Trends in Biosciences***3** (1): 8-11.
  
- Chattopadhyay, K., Bhattacharyya, S., **Karmakar, N.**, Biswas, T., Das, S.P. and Singh, N.P., (2009). Marker assisted selection for aromatic and submergence tolerant rice genotypes for Tripura, *Oryza*, **46** (3): 245-247.
  
- **Karmakar N.**, Chakravarty A., Bandopadhyay P. and Das P. (2014) Response of fenugreek (*Trigonellafoenum-graecum* L.) seedlings under moisture and heavy metal stress with special reference to antioxidant system, *African Journal of Biotechnology*,**13**(3): 434-440.
  
- Chattopadhyay P., **Karmakar N.** and Sen S.,(2014) Exploration of *Serratiaentomophila* AB2 for lepidopteran pest control and productivity of groundnut, *African Journal Of Microbiology Research*, **8**(35): 3250-3254.
  
- Chattopadhyay P., **Karmakar N.**, Chatterjee S and Sen S., (2014), Field efficacy of inorganic carrier based formulations of *Serratiaentomophila* AB2 in *Sesamumindicum* var. Kanak, *African Journal of Biotechnology*, **13**(34): 3481-3488.
  
- Swati Patel, Bina Panchal, **NilimaKarmakar**, Rajkumar and Sanjay Jha, (2015), Solubilization of rock phosphate by two *Rhizopus* species isolated from coastal areas of South Gujarat and its effect on chickpea. *Ecology, Environment and Conservation(accepted)*.
  
- **Nilima karmakar**, Arunabha Chakravarty, Pranab Kumar Bandopadhyay, (2016), Interacting Influence of Vermicompost and Micronutrient on antioxidant status of fenugreek *Trigonella foenum-graecum* (L.). *Environment and Ecology*, **34** (4B), 2152-2156.

- Vivek N. Zinzala, Ajay V. Narwade, Nitin B. Ahir, **Nilima Karmakar**, S. Sree Ganesh and Akshay N. Kudache, Effect of Water Regimes on Physiological Parameters of Indian Bean (*Lablab purpureus* L.), 2016, *IJTA*. 34(2).
- Vivek N. Zinzala, Ajay V. Narwade, **Nilima Karmakar**, S. Sree Ganesh, Akshay N. Kudache and Nitin B. Ahir, Effect of Water Regimes on Biochemical Parameters of Indian Bean (*Lablab purpureus* L.), 2016, *IJTA*. 34,(2).
- N. K. Rod, Nitin N. Gudadhe, Nilima Karmakar, P. V. Mehta & A. V. Narwade, Cobalt chloride enhances crop duration, increases production, and productivity of chickpea, 2018, *J Pl Nutr.*, <https://doi.org/10.1080/01904167.2018.1544258>. **(Taylor & Francis)**
- Chandrasekhar Chatterjee, Manojkanti Debnath, Nilima Karmakar and Raghunath Sadhukhan, Stability of grass pea (*Lathyrus sativus* L.) genotypes in different agroclimatic zone in eastern part of India with special reference to West Bengal, 2019, *Genet Res and Crop Evol*. DOI 10.1007/s10722-019-00809-2. **(Springer)**
- Kajal S. Patel, Nilima Karmakar, Ketan, D. Desai, Ajay V. Narwade, Gayacharan, Chakravarty & Manoj Kanti Debnath, Exploring of greater yam (*Dioscorea alata* L.) genotypes through biochemical screening for better cultivation in south Gujarat zone of India, *Physiol and Mol Biol Pl.*, 2019, DOI 10.1007/s12298-019-00698-w. **(Springer)**

## **Books**

- Some biochemical attributes of fenugreek: Influence of Vermicompost and micronutrients. **ISBN-978-3-659-21458-5. Lambert Academic Publishing.**
- Effect of Chelator and Micronutrients on Productivity of Chilli:Related to Biochemical Changes. **ISBN 978-3-659-20084-7. Lambert Academic Publishing.**
- Heavy metal impact on Chickpea-Biochemistry, anatomy and Cytology. **ISBN 978-3-659-82093-9. Lambert Academic Publishing.**

## **Students guided:**

- 2 M.SC. (completed)
- 2 M.Sc. (Running)
- 1 Ph. D. (Co-Guide completed)
- 1 Ph. D. (running)

### **Country Visited (for seminar):**

- Bangladesh (Dhaka)
- USA (Florida)

### **Life Membership :**

- Indian society of plant physiologists.
- Indian society of agricultural biochemists.

### **Reviewer:**

- African journal of Biotechnology.
- Journal of Food Science and Technology.

### **Extention and other work:**

- The candidate has completed Rural Agricultural Works Experience programme as per guidelines formulated by Indian Council of Agricultural Research during the time of completion of the B.Sc. Agri. Hons.
- The candidate has successfully took part in the Rural Agricultural Works Experience programme conducted by Navsari Agricultural University and guided the undergraduate students in the tour programme in the state of Gujarat, India.
- The candidate is engaged in analysis of plant and soil samples in the Central Instrumental Laboratory of the University as per the demand of the local farmers. And entrepreneurs.

### **References: (3)**

**Dr. K. G. Patel**  
Professor and Head  
Dept. Of Soil Science and Agricultural Chemistry  
N.M. College of Agriculture  
**Navsari Agricultural University,**  
Navsari-396450  
Cell : 9898106227  
Mail: [kgpatel@nau.in](mailto:kgpatel@nau.in)

**Dr. Abhimanyu Sarkar**

Department of Metabolic Biology  
**John Innes Centre, Norwich Research Park**  
Norwich, NR4 7UH, UK  
Email : [Abhimanyu.Sarkar@jic.ac.uk](mailto:Abhimanyu.Sarkar@jic.ac.uk)

**Dr. S.K.Samanta**  
**Former Joint Director of Research**  
**BCKV State Agriculture University of West Bengal ([www.bckv.edu.in](http://www.bckv.edu.in))**  
118A/1 Sarat Ghosh Garden Road, Flat #B4. Geetabhavan,  
Kolkata - 700031, W.B, India  
**Tel : +919433022021**  
Email : [drsamanta@gmail.com](mailto:drsamanta@gmail.com)