

## Personal Details

### Mr Mukesh Kumar Vishal

Scientist, Agricultural Statistics

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**Research Interest:** Statistical Analysis, Application of Statistical Pattern Recognition, and Computer Vision in Agriculture, High Throughput Phenotyping, Seed Spices

**Ph.D.:** Pursuing at Indian Institute of Technology Bombay, Mumbai, India

**M.Sc.:** India Agricultural Research Institute, New Delhi, India

**Joining date in ICAR (yyyy/mm/dd):** 2009-11-04

## Google Scholar

### **Publications (Top 10 Publications having NAAS rating 6 and above with first or corresponding author only):**

1. **Mukesh Kumar Vishal**, Biplab Banerjee, Rohit Saluja, Dhandapani Raju, Viswanathan Chinnusamy, Sudhir Kumar, Rabi Narayan Sahoo, Jagarlapudi Adinarayana, (2020). Leaf Counting in Rice (*Oryza Sativa L.*) using Object Detection: A Deep Learning Approach. IGARSS 2020; Paper Id: 4197; pp: 5289-5289.
2. Choudhary S, Sharma R, Jethra G, **Vishal MK**, Tripathi A (2019) Molecular diversity in coriander (*Coriandrum sativum*) using RAPD and ISSR markers. Indian Journal of Agricultural Sciences 89: 193-198.
3. Agarwal D, Saxena SN, **Vishal M K**, Sharma LK, Dubey PN, Agrawal A, and Lal G (2018). Hepatoprotective Properties of Fennel Seeds Extract. MOJ Food Processing and Technology (Med Carv) 6(1): 00140. DOI: 10.15406/mojfpt.2018.06.00140.
4. Brijesh Kumar Mishra, P N Dubey, O P Aishwath, Krishna Kant, Y K Sharma and **M K Vishal** (2017). Effect of plant growth promoting Rhizobacteria on coriander (*Coriandrum sativum*) growth and yield under semi-arid condition of India in Indian Journal of Agricultural Sciences 87 (5):607-12 May 2017.
5. P.N. Dubey, S.N. Saxena, B.K. Mishra, R.K. Solanki, **M.K. Vishal**, B. Singh, L.K. Sharma, S. John, D. Agarwal, A. Yogi (2017). Preponderance of cumin (*Cuminum cyminum L.*) essential oil constituents across cumin growing Agro-Ecological Sub Regions, India in Industrial Crops and Products 95 (2017) 50–59.
6. S N Saxena, R K Kakani, S S Rathore, R S Meena, **M K Vishal**, LK Sharma, D. Agrawal, S John, A Panwar and B Singh (2016). "Genetic variation in essential oil constituents of fennel (*Foeniculum vulgare Mill*) germplasm" in Journal of Essential Oil-Bearing Plants, Vol.-19 (4), Page No: 989-999.

7. R.K. Singh, R.K. Vishwakarma, **M.K. Vishal**, Deepika Goswami and R.S. Mehta. (2016). Moisture Dependent Physical Properties of Dill. Journal of Agricultural Engineering. Vol 53, No: 1, January – March 2016.

8. Sharda Choudhary, RS Meena, R Singh, **MK Vishal**, GeetikaJethra, Mamta Saini and Alka Panwar. (2015). Analysis of diversity among cumin (Cuminum cyminum) cultivars using RAPD markers. Indian Journal of Agricultural Sciences 85 (3): 409-13, March 2015.

9. Sharda Choudhary, R.S. Meena, Ravindra Singh, **MK Vishal**, Vibha Choudhary and Alka Panwar (2013). Assessment of genetic diversity among Indian fenugreek (Trigonella foenumgraecum L.) varieties using morphological and RAPD markers. Legume Research, 36 (4): (299 – 305).

10. BK Mishra, Virendra Yadav, **MK Vishal** and Krishna Kant (2013). Physiological and molecular characterization of cluster bean [Cyamopsis tetragonoloba (L.) Taub] rhizobia isolated from different areas of Rajasthan, India. Legume Research, 36 (4): 299 – 305.

**Patent / Technologies / Varieties / Methodologies / System etc. (Five only):**

1. Prepared Databases on Seed Spices (PI)
2. Expert System on Seed Spices (Co-PI)
3. Benchmarked the seed spices growing areas, and with different agro-ecological regions in India, Thematic Maps generation as well as Database preparation for the same. (PI)

**No. of Students Guided:**M.Sc.: 02 (Co-supervisor) Ph.D.: Nil

**Awards / Recognitions / Fellowship (Five only):**

1. Fellow, Indian Society of Seed Spices
2. ASRB-ICAR- NET, Agricultural Statistics and Computer Application.
3. IARI Merit Fellowship for M.Sc. 2005-07
4. Received a Certificate of Appreciation in recognition for being a Volunteer and for participation for the prestigious Thirty-Seventh International Conference on Machine Learning, ICML 2020 (the first ever virtual ICML).

**International exposure:**

**International Conference**

1. Participated and presented a paper in **ICLR 2020** Workshop on Computer Vision for Agriculture April 26<sup>th</sup> 2020, Addis Ababa, Ethiopia (**Went as a Virtual Conference due to COVID-19**) Paper Id-29.
2. Attended International Conference on Machine Learning - **ICML 2020**, July 12 - July 18, 2020, Vienna, Austria (**Went as a Virtual Conference due to COVID-19**)
3. Participated and presented a paper in an International Conference – 2020 IEEE International Geoscience and Remote Sensing Symposium from September 26- October 2, 2020 Hawaii (**Went as a Virtual Symposium due to COVID-19**), Paper Id: 4197.

**Ongoing research projects (institutional / external funded -as PI or CCPD):**

On study leave