Faculty Profile

Personal Details

Name	Dr. DEEPAK KHANDERAO PATIL
Designation	Associate Dean and Principal
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Academic Qualifications

Degree	Specialization	University	Year of Passing
Ph. D.	Cytogenetics and Plant Breeding	Mahatma Phule Krishi Vidyapeeth, Rahuri	2002
M. Sc.	Genetics and Plant Breeding	Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola	1997
B. Sc.	Agriculture	Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola	1995
Additional Qualification (if any): Additional Degree/Diploma/NET/SET			
NET	Genetics and Plant Breeding	ASRB, New Delhi	2002
MH-CIT	Computer applications	MSBTE	2003

Professional Experience

Stream	Years	Stream	Years
Teaching	05 (Additional)	Research	21
Extension		Administration	09

Area of Research/Interest
Genetics and Plant Breeding

Research Guidance

Degree	No. of Student & Guided
M.Sc./M.Tech	10
Ph. D.	02

Research Accomplishments (Recent Ten Most Important Publications)

Sr.No	Title	Journal	ISSN/ISBN	NAAS Rating
01	Adventitious root formation confers waterlogging tolerance in cowpea (*Vigna unguiculata* (L.) Walp.)	Frontiers in Sustainable Food Systems- Vol. 8: 1373183 (2024)	1664-462X	10.70
02	Multi-environment testing of G X E interactions and	Front. Plant Sci.	2571-581X	11.60

	identifications of high yielding stable medium duration pigeonpea genotypes employing AMMI, GGE biplot and YREM analysis	Sec. Plant Breeding Volume 15 - 2024		
03	Development of CGMS systems in Pigeonpea with special reference to A_2 Source of male sterility	Legume Research (2024)	0250-5371	6.80
04	Translational Pigeonpea Genomics Consortium for Accelerating Genetic Gains in Pigeonpea (*Cajanus cajan* L.):	Agronomy (2020) 10: 1-20	2073-4395	8.26
05	Multivariate Analysis using D2 and Principal Component Analysis in Mung bean [*Vigna radiata* (L.) Wilczek] for Study of Genetic Diversity,	Legume Research (2021)	0250-5371	6.80
06	Advancing real time plant disease detection: A light weight deep learning approach and novel dataset for Pigeonpea crop	Smar Agricultural Technology (2024) 7: 1-16	2772-3755	6.3 (Impact Factor)
07	Genetic variability analysis for yield and yield components in green gram (*Vigna radiata* (L.) Wilczek).	The Pharma Innovation Journal, (2023) 12: 849-853	2349-8242	5.23
08	Study of Inheritance for fertility restoration in *Cajanus scaraboaides* cytoplasm base Pigeonpea (*Cajanus cajan* (L.) Millsp) hybrids	International Journal of Current Microbiology and Applied Sciences (2022): Volume 11 (1):	2319-7692	5.38
09	Genetics of Seed Colour and Pod Colour in Greengram (*Vigna radiata* L. Wilczek).	Biological Forum – An International Journal (2023) 15 (11): 361-365	0975-1130	5.11
10	Assessment of genetic variances and effects for agronomic traits in mungbean (*Vigna radiata* (L.) Wilczek)	International Journal of Advanced Biochemistry Research 2024; 8 (5): 473-476	2617-4693	5.29

Credentials:

Particulars	Numbers	Particulars	Numbers

Research Articles	65	Popular Articles	54
Books / Booklets	08	Book Chapters	01
Research/Technology Recommendations	08	Varieties Developed	07
Patents	---	Abstracts Published	99
Technical Publication	---		

Significant Achievements (Top Five)

Patent/IP/Technologies/ Varieties/Machineries Developed/ Methodologies/ Recommendations	**Year**
Registered a Pigeonpea genotype BDN 2004-4 and BDN 2004-4A & B in National Bureau of Plant Genetic Resources (NBPGR) New Delhi as a **Novel Marker** for future use as a Morphological Marker in breeding programme and CMS hybrid development programme. **(Certificate Issued: 18th May, 2010, INGR No. 10105 & 10106)**	2010
Actively contributed in the development and released of Pigeonpea variety BDN 708 (2004).	2004
2. Contributed as a main breeder in the released of Pigeonpea variety BDN 711 (2012)	2012
Contributed as a main breeder in the released of Pigeonpea variety BDN 716	2017
Contributed as a main breeder in the released of Pigeonpea variety BDN 2013-41 (Godavari)	2021
Contributed as a main breeder in the released of Pigeonpea variety BDN 2013-02 (Renuka) identified for central zone of India (Maharashtra, Madhya Pradesh, Gujrat, Chhattisgarh, Rajasthan)	2022
Contributed as a main breeder in the release of Pigeonpea hybrid BDNPH 2008-02 identified for central zone (Maharashtra, Madhya Pradesh, Gujarat, Chattisgarh, Rajasthan)	2024
Assisted in the development of released chickpea variety Phule G-9425-5 (Digvijay)	2005
Contributed as a main breeder in the released of Mungbean variety BM 2003-2 (2010).	2010
Actively contributed in the development of released Chickpea Kabuli variety BDNGK 798 for Maharashtra State	2013
Actively contributed in the development of centrally released Chickpea Kabuli variety BDNGK 798 for North-East Plain Zone (2014).	2014
Recommendation proposal of Integrated Pest Management Module for Pigeonpea	2016
Recommendation proposal of Integrated Pest Management Module for Pigeonpea	2017

Externally Funded Projects: Implemented/Handled/Assisted

I. **Centre Principal Investigator in the *adhoc* project** "**Hybrid Project on Pigeonpea under Consortium Research Project on Hybrid Technology"** funded by Department of Agril. Co-peration and Farmers Welfare, New Delhi through Indian Council of Agril. Research, New Delhi from 2015 to till date with the approximate budget of Rs. 17.50 lakhs per year.

The project is implemented in co-ordiantion with ICAR-Indian Institute of Pulses Research, Kanpur, ICAR-Indian Institute of Agril. Research, New Delhi, and Panjub Agril. Univeristy, Ludhiana.

II. **Centre Principal Investigator in the** Extramural research project on **"Development of Photo Thermo Insensitive and Yellow Mosaic Resistant Pre-breeding Lines in Mungbean (*Vigna radiata* L.) and Urdbean (*V. mungo* L.)"** funded by Indian Council of Agril. Research, New Delhi during 2015-16 to 2016-17 with the total budget of Rs. 15.64 lakhs. The project was implemented in collaboration with ICAR-Indian Institute of Pulses Research, Kanapur; Anbil Dharmalingam Agricultural College and Research Institute, Trichy, Tamilnadu and Regional Research Station, Gurdaspur, Panjab. The main objective of the project is to develop the photo and thermo insensitive genotypes having resistance to various diseases in Mungbean and Urdbean.

III. **Centre Principal Investigator in the** Pigeonpea Pre breeding development programme under extramural research project on **"Widening the genetic base in Pigeonpea (*Cajanus cajan* L. Millsp.) through pre breeding efforts for developing next generation wilt resistant and photo-insensitive early genotypes"** funded by Indian Council of Agril. Research, New Delhi during 2015-16 to 2016-17 with the total budget of Rs. 5.72 lakhs. Under this project different exotic African genotypes as well as wild species of Pigeonpea such as *Cajanus scarabaeoids, Canjanus albicans* etc. were utilized to broaden the genetic base under distinct hybridization programme for developing next generation wilt resistant and photo-insensitive early genotypes.

IV. **Centre Principal Investigator in the *adhoc* project "Delivering more produced and income to farmers through enhancing genetic gains for Pigeonpea"** funded by Department of Agricultural Co-operation and Farmers Welfare, Government of India, New Delhi with the total budget of Rs. 60.77 lakhs during 2017-18 to 2020-21. The project was implemented in collaboration with International Crop Research Institute for Semi-arid Tropics, Patancheru, Hyderabad, ICAR-Indian Institute of Pulses Research, Kalyanpur, Kanpur, Pulses Research Unit, Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Sehore, Mahatma Phule Krishi Vidyapeeth, Rahuri, Agril. Research Station, Tandur (Professor Jayashankar Telangana State Agricultural University) Telangana, Agril. Research Station, Guntur, Regional Agril. Research Station, Nandyal, Agril. Research Station, Kalaburagi.

V. Research project on **"Characterization, Evaluation of Genetic Resources for Genetic Enhancement and Improvement of Minor Pulses."** Funded by Department of Bio-technology, Government of India was implemented from 2018-19 to 2022-23 with the total budget of Rs. 87.00 lakhs in collaboration with ICAR- National Bureau of Plant Genetic Resources, New Delhi, Punjab Agril. University, Ludhiana, Gandhi Krishi Vigyana Kendra,

University of Agril. Sciences, Bangalore, Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya, Palampur.

VI. Centre PI, for the *adhoc* project "**CRP-on agrobiodiversity"** funded by Indian Council of Agril. Research, New Delhi from 2023-24 to till date in collaboration with ICAR-National Bureau of Plant Genetic Resources, New Delhi, ICAR-Indian Institute of Pulses Research, Kalyanpur, Kanpur. The objective of the project is characterization of germplasm supplied by ICAR-NBPGR, New Delhi and pre-breeding approaches in Pigeonpea.

VII. Nodal officer for the project "**Enhancing breeder seed production for increasing indigenous production of pulses in India**", funded under centrally sponsored scheme of National Food Security Mission amounting Rs. 1.05 cr implemented during 2016-17 to 2022-23 with the objective of the project is to produce the breeder seed production for increasing the area of pulses in India.

VIII. Centre PI, for the project **"Creation of seed hubs for increasing indigenous production of pulses in India"** funded under centrally sponsored scheme of National Food Security Mission amounting Rs. 1.00 cr. Implemented during 2016-17 to 2022-23.

Awards/Recognitions (Top Five)

1. Received **Radhakishan Malhotra Award** for the year 2017-18 awarded during 2021 for commendable work in Development, Production, and promotion of pulses varieties having resistance to biotic and abiotic stresses and changing climatic conditions for socio-economic upgradation rainfed cultivars of Maharashtra state more particularly Marathwada region.
2. Received **State Level Best Scientist Award** for the year 2023 for commendable work in the development of pulses variety having resistance to biotic and abiotic stresses and their impact in the state during the state level JOINT AGRESCO-2023.
3. Best Pigeonpea Award to the centre during 2007 by ICAR
4. Expert Member for a proposed visit to **Mozambique** as a part of MoU in the field of production and marketing of Pigeonpea Implementation.
5. Member of technical advisory committee for the revision of "DUS test guidelines of Pigeonpea appointed by Protection of Plant Varieties and Farmers Right Authority of India, Govt. of India, New Delhi.
6. Member of variety release scrutiny committee at state level constituted by Agriculture Commissioner, Govt. of Maharashtra, Pune
7. Nominated as an Editor for Journal of Agril. Research and Technology, Pune
8. Member of editorial board of Journal of Agricultural Research and Technology,
9. Nominated as a councilor of Indian Society of Pulses Research and Development during 2014-2017.
10. Nominated as a councilor of Indian Society of Pulses Research and Development during 2017-2020