

Dr Priyanka Pandey  
Associate Professor  
Department of Botany  
Gargi College  
University of Delhi



### 1. Personal details and Contact information:

Full Name	Priyanka Pandey nee Kapoor	Gender	Female
Category	Unreserved (UR)	Nationality	Indian
Date of Birth	10-12-1977	Father's Name	Desh Bandhu Kapoor
Marital Status	Married	Phone No	91-11-22773398
Email	<a href="mailto:smailpriyanka@gmail.com">smailpriyanka@gmail.com</a> , <a href="mailto:priyanka.pandey@gargi.du.ac.in">priyanka.pandey@gargi.du.ac.in</a>	Mobile No	91-9871764306
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### 2. Academic Qualifications:

Examination	Name of Degree	Subject(s)	Overall Percentage*	Year	University/Institute
Bachelor's Degree	Undergraduate degree	Botany	75.00	1998	Miranda House, University of Delhi
Master's Degree	Post graduate degree	Botany	77.00	2000	Botany Department, University of Delhi
M.Phil.	Thesis/Dissertation Title : Phase Change in	Botany Department, University of	Registration/Admission Date : 09-09-	Submission Date : 22-01-	Award Date : 22-02-2002

plants: Some aspects      Delhi      2000      2002

Percentage:  
83.00

Ph.D.      Thesis/Dissertation Title : Rhizome Induction and Plant Regeneration under *in vitro* and *in vivo* Conditions: Some Aspects of Phase Change in Bamboos      Botany department, University of Delhi      Registration Date : 29-09-2002      Submission Date : 09-09-2006      Award Date : 24-02-2007

Salient features of your Ph.D. research work

The objectives of research programme were to understand some of the physiological factors using plant growth regulators for precocious rhizome induction and provide a protocol (through *in vitro* as well as *in vivo* means) for mass scale propagation of bamboos for sustainable development and apply the concept of phase change to this process. Caryopses of *Bambusa bambos* var. *gigantea* were used for *in vitro* experiments and caryopses of *B bambos* were used for *in vivo* experimentation.

UGC/CSIR NET/JRF      UGC-CSIR NET : JRF(UGC/CSIR)      NET Subject : Life Sciences      Certificate No./Roll No. : 2-44/2000(i)-EU.II

Additional information:

S.no	Name of Degree	Main Subject	Grades/Marks	Percentage/Grade	Year	University/Institution	State	Country
1	MRES	Advanced Genomic and Proteomic Sciences	Percentage	60	2017-07-12	School of Biosciences, University of Nottingham	Nottingham	United Kingdom

### 3. Employment (Teaching experience)

S.no.	Name of University/College/Institute/Organization	Designation	Status	Programme	Course/Subject	From	To	Effective Time Period (Excluding 2 years of Residency Period)
1	Gargi College University of Delhi	Associate Professor	Permanent	Undergraduate	Teaching Botany to BSc Botany (Hons.), Zoology (Hons.), Life Science	16-07-2008	continued	Approx. 15 years
2	Sri Venkateswara College University of Delhi	Lecturer	Ad-hoc	Undergraduate	Teaching Botany to BSc Botany (Hons.), Zoology (Hons.), Life Science and Biological Science	09-08-2007	23-04-2008	00 years, 08 months, 15 days
3	Rajdhani College University of Delhi	Lecturer	Ad-hoc	Undergraduate	Teaching Environmental Studies to BSc (Physical Sciences)	14-11-2006	23-04-2007	00 years, 05 months, 10 days

### 4. Fellowships:

S.no.	Name of Fellowship	Awarding Institution/Organization	From	To	Level
1	Junior Research Fellowship	UGC	2001-03-09	2005-09-16	National
2	Vice Chancellor's Fellowship	University of Delhi	2014-01-01	2014-07-20	National

3	Faculty Improvement Programme	University of Delhi	2015-09-22	2016-09-09	International
4	Summer Faculty Research Fellow	Indian Institute of Technology, Delhi	2019-05-09	2019-07.14	National

#### 5. Awards:

S.no.	Name of Awarding Body	Name of Award/Honour	Date	Level
1	Delhi University Botanical society, Department of Botany, University of Delhi	Professor N S Rangaswamy Medal-2007	2007-03-18	State/University Level
2	University of Delhi	Panchanan Maheshwari Memorial Prize, 2000	2001-03-24	State/University Level
3	Miranda House, University of Delhi	University Ranker-2000 (North Campus) First Position	2001-03-14	State/University Level
4	Miranda House, University of Delhi	Lakshmi Krishnaswamy award	2000-03-07	State/University Level
5	Miranda House, University of delhi	Lakshmi Krishnaswamy award	1998-02-26	State/University Level
6	Miranda House, University of Delhi	Award for securing highest marks in class in Part I/II/II in the annual examination held in April 1998	1999-03-09	State/University Level
7	University of Nottingham	Delhi University Staff development Programme Scholarship	2015-11-26	International

#### 6. Grants:

S. no.	Title	Major/Minor	PI/Co-PI	Period	Total Grant/Funding received(Rs.)	Name of Sponsoring/ Funding Agency	Outcome of the Project
1	Quantification of Nutrient	Major	PI	2015-	5-30 lakh	University	Research

	Uptake and Allocation under Phosphate Stress in Rice using Ionomics Techniques			2016		of Delhi	thesis
2	Mass scale propagation of priority bamboo species by in vitro rhizome induction and development	Minor	PI	2013-2014	1-5 lakh	UGC	Research publication, Submission of dissertation of a Final year MSc student of Amity University based on research work done under this project

## 7. Publications:

In Journals:

S.no.	Publication Type	Title of the Paper	Journal Name	Year	Vol. No.	Page No.	ISSN No.	Impact Factor	Author	UGC listed Journal
1.	Research Article / papers in refereed Journals	Extracts of <i>Syzygium aromaticum</i> (cloves), <i>Zingiber officinale</i> (ginger), <i>Curcuma longa</i> (Turmeric) and <i>Ocimum sanctum</i> (Tulsi) fortified with nanosilver for antibacterial therapeutic	International Journal of research and analytical reviews (IJAR)	2023	10	31-39	2349-5138	-	First author	Yes

S.no.	Publication Type	Title of the Paper	Journal Name	Year	Vol. No.	Page No.	ISSN No.	Impact Factor	Author	UGC listed Journal
		s								
2.	Research Article s/ papers in refereed Journals	Seed rhizome induction during in vitro organogenesis of <i>Bambusa bambos</i> var. <i>gigantea</i> Bennet and Gaur	Phytomorphology	2018	68 (1 & 2)	1-6	0031-9449	-	First and corresponding / principal author	Yes
3.	Research Article s/ papers in refereed Journals	In vitro propagation of everlasting paper daisy [ <i>Helichrysum bracteatum</i> (Vent.) Andrews] using shoot tip explants	Phytomorphology	2018	68 (3 & 4)	77-86	0031-9449	-	Other Author/ Co- Author	Yes
4.	Research Article s/Papers in Refereed Journals	Micropropagation of Cymbidium Sleeping Nymph through protocorm like bodies production by thin cell layer culture	Scientia Horticulturae	2013	123	551-557	0304-4238	between 2 and 5	Other Author/Co-Author	Yes
5.	Research Article s/Papers in Refereed Journal	In vitro mineral nutrition and plant morphogenesis-A	Journal of Plant Biology	2011	38	293-307	1226-9239	less than 1	Other Author/Co-Author	Yes

S.no.	Publication Type	Title of the Paper	Journal Name	Year	Vol. No.	Page No.	ISSN No.	Impact Factor	Author	UGC listed Journal
	s	review								
6.	Research Article/Papers in Refereed Journals	Physiological ageing during prolonged in vitro culture of multiple shoots of <i>Bambusa bambos</i> var <i>gigantea</i> Bennet and Gaur	Journal of horticultural science and biotechnology	2013	88	476-482	1462-0316	less than 1	First and Principal/Corresponding author/supervisor/mentor	Yes
7.	Research Article/Papers in Refereed Journals	<i>In vitro</i> plantlet regeneration from protocorms of <i>Dendrobium luteiflorum</i> Lindl. and <i>Cymbidium bicolor</i> Lindl. and their acclimatization: effects of salts, sucrose and banana extract	Journal of Horticultural Science and Biotechnology	2012	87	485-492	1462-0316	less than 1	Other Author/Co-Author	Yes
8.	Research Article/Papers in Refereed Journals	Synchronous plantlet formation by using banana extract and in vitro hardening in orchid, <i>Dendrobium luteiflorum</i> Lindl.	Journal of Ornamental and Horticultural Plants	2011	1	175-184	2251-6433	less than 1	Other Author/Co-Author	Yes

S.no.	Publication Type	Title of the Paper	Journal Name	Year	Vol. No.	Page No.	ISSN No.	Impact Factor	Author	UGC listed Journal
9.	Research Article s/Paper s in Refereed Journal s	In vitro propagation for conservation of rare and threatened plants: a review	International Journal of Biological Technology	2010	1	1-14	0976-4313	less than 1	Other Author/Co-Author	Yes
10	Research Article s/Paper s in Refereed Journal s	In vitro rhizome induction and plantlet formation from multiple shoots in <i>Bambusa bambos</i> var. <i>gigantea</i> Bennet and Gaur by using growth regulators and sucrose	Plant Cell tissue and Organ Culture	2006	85	211-217	1573-5044	less than 1	First and Principal/Corresponding author	Yes

#### Chapters in books:

S.no.	Publication Type	Title	ISSN/ ISBN No.	Author/Co-Author	Publisher's Details	Year	Level
1	Chapters in Books /Full Paper in Conference Proceedings/Other	In vitro propagation of <i>Dendrocalamus strictus</i> , <i>Bambusa bambos</i> var. <i>gigantea</i> and <i>Dendrocalamus asper</i> and study of <i>In vitro</i> flowering in <i>Bambusa</i>	DK-231689	Other Author/Co-author	www.dkagencies.com	2011	National



		<i>bambos</i>					
2	Chapters in Books /Full Paper in Conference Proceedings/Other	Understanding the physiological, biochemical and molecular aspects of growth and development of geophytes (rhizome, tuber, bulb and corm) in higher plants	978-81-7754-443-5	Other Author/Co-author	Agrobios (India)	2011	National
3	Chapters in Books /Full Paper in Conference Proceedings/Other	Rhizome Physiology, Growth and Development in Bamboos	8179101517	First and Principal/Corresponding author/supervisor/mentor	Aavishkar Publishers, Distributors, Rajasthan, India	2006	National
4	Chapters in Books /Full Paper in Conference Proceedings/Other	Phase change in Plants: Some Aspects	81-88237-64-7	First and Principal/Corresponding author/supervisor/mentor	I K International Publishing House, New Delhi, India	2006	National

**8. Invited lectures / Resource Person/ paper presentation in Seminars/ Conferences/full paper in Conference Proceedings :**

S.No.	Title of Lecture/Paper	Invited Lecutre/Resource Person/Paper presented	Nature of Programme*	Details	Level**	Date of presentation	Durati on (in minutes)	Sponsoring Agency
1.	<i>In vitro</i> rhizome induction and plant regeneration in Bamboo	Invited lecture	National seminar	Use of scientific and technical terminologies in sustainable environment development, its challenges, computational analysis and opportunities	National	16 <sup>th</sup> March 2019	60 minutes	Department of Zoology, Gargi College and Commission for Scientific and Technical Terminology (CSTT), MHRD, Govt. of India

Organic lifestyle for creating well being	Conference Proceedings	Conference	Revisiting Wellbeing: Perspectives, Challenges, and the Road Ahead	International	02/02/2023	15 minutes
Green synthesis of silver nanoparticles of Ocimum and Zingiber	Conference Proceedings	Conference	National Conference on Medicinal Plants: Frontire areas of Research and Development	National	16/03/2023	16-17 March 2023

### 9. Research guidance:

S. no.	Title	Major/Minor	PI/Co-PI	Period	Total Grant/Funding received(Rs.)	Name of Sponsoring/ Funding Agency	Outcome of the Project
1	Mass scale propagation of priority bamboo species by in vitro rhizome induction and development	Minor	PI	2013-2014	1-5 lakh	UGC	Research publication, Submission of dissertation of a Final year MSc student of amity University based on research work done under this project

### 10. Professional Qulaifications:

Outline of most significant contribution to research work ( <b>Research experience</b> )	<ol style="list-style-type: none"> <li>1. Understanding effect of growth regulators and sucrose on development of rhizomes in bamboos: <b>Basic biology</b>.</li> <li>2. Development of protocol for mass scale propagation of bamboos through seeds: <b>Micropropagation, Plant tissue culture, Basic Biotechnology</b>.</li> <li>3. Conceptual knowledge of phenomenon of physiological ageing and vegetative phase change during <i>in vitro</i> development of rhizomes in bamboos: <b>Agroforestry</b></li> <li>4. Anatomical details of <i>in vitro rhizome</i> formation in bamboos: <b>Anatomy of plants</b></li> <li>5. Study of phosphate stress in rice, model system: <b>Mineral</b></li> </ol>
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	<p><b>nutrition in plants, Ionomics</b></p> <p>6. Growth of rice plants using hydroponics culture technique: <b>Hydroponics</b></p> <p>7. Study of nutrient status of shoots and roots of phosphate starved rice plants by mass spectrometry: <b>ICP-MS</b></p> <p>8. Study of growth and development of two important monocots: A cereal crop (rice) and an agri- horticultural crop (bamboo): <b>Growth and Development of plants, Monocots, grasses</b></p> <p>9. Synthesis and characterization of nanoparticles of metals like silver from plant extracts and their application as antibacterial therapeutics: <b>Green Nanotechnology</b></p>
Areas of interest	<ol style="list-style-type: none"> <li>1. Setting up lab for <i>in vitro</i> culture of explants of monocots for their mass propagation and lab to land transfer of genetically viable plants.</li> <li>2. Application of hydroponics culture technique for benefits of developing cereal crops under stressful conditions.</li> <li>3. Developing University and Industrial collaborations for mass propagation of a few agriculturally important crop plants.</li> <li>4. Study of genetic markers for rhizome induction in monocots and phosphate stress in cereals.</li> <li>5. Developing crop plants for better yield and adaptability.</li> <li>6. Emphasis on designing low cost protocols for mass propagation of plant systems. Transfer of technologies to industries.</li> <li>7. Use of Green nanotechnology for their beneficial effects on organisms</li> </ol>
Membership/Fellowship of Academies/Institutions/Professional Societies	Lifetime Member of ISPM (International Society of Plant Morphologists).
Other activities/responsibilities: (academic/administrative)	<p>Academic:</p> <ol style="list-style-type: none"> <li>1. Mentoring undergraduate students for conducting research with available inputs.</li> <li>2. Development of syllabus as per need of the revised or new curriculum.</li> <li>3. Work on MOOCs.</li> <li>4. Development of multiple choice questions for environmental science: Question banks</li> </ol> <p>Administrative:</p> <ol style="list-style-type: none"> <li>1. Worked as Teacher In charge of the Department taking care of examinations, timetables, lab work and other such</li> </ol>

	<p>issues related to functioning of a Department.</p> <p>2. Part of computer lab committee and others.</p> <p>3. Worked as a Vice Chancellor fellow for implementation of FYUP and MOOCs in 2014.</p> <p>4. Convenor for Add on course “<b>Ecofriendly agriculture</b>” in Gargi College since 2021)</p>
<p>List of the theme areas of interest for research:</p> <ol style="list-style-type: none"> <li>1. Basic Plant Biotechnology (Plant tissue culture)</li> <li>2. Plant Anatomy</li> <li>3. Ionomics</li> <li>4. Hydroponics</li> <li>5. Green Nanotechnology</li> <li>6. Agroforestry (Bamboos)</li> <li>7. Biofertilizers and organic farming</li> </ol>	