

SOME WORDS & ACHIEVEMENTS

DR. SASHIKALA BEURA

- Dr. Sashikala Beura is currently working as Head of the Department, Floriculture and Landscaping and as Director, Biotechnology-cum-Tissue Culture Centre, Orissa University of Agriculture and Technology (OUAT), Bhubaneswar.
- She obtained her M.Sc. (Ag.) degree in Horticulture from OUAT, Bhubaneswar securing 1st Class 1st position in the University and awarded with **University Gold Medal** (Annexure -1).
- She owned National Scholarship during H.S.C., I. Sc. and B.Sc. (Ag.), University Merit Scholarship during M.Sc. (Ag.) and **CSIR Sr. Research Fellowship** during Ph. D. (Annexure-2)
- She did her Ph.D. degree in Horticulture with specialization in Floricultural Biotechnology from GBPUAT, Pantnagar (Uttarakhand) securing **OGPA of 4.87/5.00**. (Annexure-3) and did Genetic Transformation of gladiolus in the Ph.D. Thesis work for the **1st time in India** as told by Dr. S.P.S. Raghava, the then Project Coordinator (Floriculture), ICAR (Annexure-4).
- She is the **First Lady Scientist** of the state of Odisha to do P.G. and Ph. D. in Horticulture (Annexure-5).
- She is teaching Agriculture, Horticulture, Floriculture and Landscape Gardening, Post-harvest Technology and Biotechnology related subjects to the UG and PG and Ph.D students (**27 courses** vide biodata Page No.9)
- She has served as a **major advisor of 29 Post-Graduate students** and one B.Tech. Student of different universities of India.
- Dr. Beura has **64 Nos. of Research Papers In National and International Journals of repute, 59 Scientific popular articles, 6 books, 7 book chapters and 10 technical bulletins** to her credit (List of publication attached).
- She has been working in the broad areas of Floriculture, Tissue culture and Post harvest Technology in OUAT. Her research accomplishments include standardization of protocol for *in vitro* shoot and corm production of gladiolus, *in vitro* protocols for **turmeric, dracaena, yam, gerbera, sugarcane, banana, orchid & mango ginger** and postharvest technology of gladiolus.
- She has performed hybridization work and instrumental in development of one cashewnut hybrid variety '**Jagannath**', which has been applied to IPR Cell for registration (Annexure-6).

- She has developed agrotechnology for **kewda, betelvine, gladiolus**, tissue cultured **banana and gerbera** cultivation for the farming community of Odisha.
- She was the **Principal Investigator** of a DBT (Government of Orissa) sponsored project on “Evaluation of germplasm and *in vitro* cloning of gerbera (*Gerbera jamesonii* Bolus) under Bhubaneswar condition”, during 2006-10.
- She was elected as the **Executive Councillor** (East Zone) of the Indian Society of Ornamental Horticulture for the period 2002-04 (Annexure-7)
- She had visited **Tehran, Islamic Republic of Iran** to attend the study meeting on “Knowledge management tools for strengthening Agricultural Research and Extension System” and presented the country report (India) from August 4-9, 2007 after being invited by the Asian Productivity Organization, Tokyo, Japan, where she **Chaired an International Session** (Annexure-8).
- She has applied **12 patents** on different crops for her work in the Biotechnology-cum-Tissue culture centre, as a scientist as well as Director (Annexure-9).
- She is the **ARS/NET questions setter of ASRB (ICAR)** in the discipline of Floriculture and Landscaping (Annexure 10).
- Her research on standardization of *in vitro* protocols led to the production of **4,81,810** numbers of tissue cultured plantlets (banana, sugarcane and gerbera) and generated a revenue of **Rs. 69,11,617.00/-** for the University from sale of the plantlets and training to outside students (Vide bio data page 8).
- She received the **Alaka Manjari Rath Best Women Scientist Award** for the year 2013, from His Excellency, Dr. S. C. Jamir, Hon’ble Governor of Odisha on the Foundation Day of OUAT (24.08.2013) (Annexure-II).
- She is the **Principal Investigator of a RKVY Project** on “Germplasm Evaluation and *in vitro* cloning of Anthurium and Lilium”.with an outlay of Rs.39.02 lakhs.
- Recently she has attended **29th International Horticultural Congress on “Production and supply chain, Landscape sustainability and Tropical Horticulture” at Brisbane Convention and Exhibition Centre, Queensland, Australia** from 17th – 22nd August, 2014.
- She has also visited **Asian Institute of Technology, Bangkok** from 14-15th August, 2014 on her way to Brisbane, Australia

BIODATA



- 1. Name in Full** : **DR. (Ms.) SASHIKALA BEURA**
M. Sc.(Ag.) Horticulture with University Gold Medal (OUAT, Bhubaneswar)
Ph.D., Horticulture (GBPUAT, Pantnagar)
CSIR Fellow (1996-98)
- 2. Date of Birth** : 21st July, 1964
- 3. Present position with address** : Head of the Department, Floriculture and Landscaping & Director, Biotechnology-cum-Tissue Culture Centre
Orissa University of Agriculture and Technology,
Bhubaneswar-751 003,
Tel: 09861138029
Fax No. 0674-2391424, 2394762
E-mail : skbeura2002@yahoo.co.in
- Field of Specialization** : Floriculture and Landscaping (Biotechnology and post harvest technology)

5. Details of Academic Qualifications

Examination/ Degree	University/ other examination body	Division & % marks	Subjects taken	Year
Ph.D. Horticulture	G.B. Pant University of Agriculture and Technology, Pantnagar , Uttaranchal	- 88.00 (4.87/5.00)	Horticulture, Floriculture, Biochemistry, Plant Physiology, Biotechnology, Postharvest technology	1998
M.Sc. (Ag.) Horticulture	OUAT Bhubaneswar	1 st Class 1 st (Gold Medalist) 83.70 (8.37/10.00)	Floriculture, Olericulture, Pomology, Plant Breeding and Genetics, Fruits and vegetable Preservation, Medicinal and Aromatic Plants Spices and Condiments	1990
B.Sc. (Ag.)	OUAT Bhubaneswar	1 st Class Hons. 80.60 (8.06/10.00)	All Undergraduate courses of Agriculture	1987
I.Sc.	Utkal University, Bhubaneswar	1 st 74.78	Physics, Chemistry, Biology, Math.	1983
H.S.C.	B.S.E., Orissa	1 st 79.29	Oriya, English, Sanskrit, Math. and all subjects	1981

6. Any Scholarship(s) Won

- H.S.C.** : ➤ National Rural Talent Search scholarship
- I.Sc.** : ➤ National Scholarship
- B.Sc.(Ag.)** : ➤ National Scholarship
- M.Sc.(Ag.)** : ➤ University Merit Scholarship
- Ph.D.** : ➤ CSIR Senior Research Fellowship
- 7 Any Medal Won** **M.Sc.(Ag.) Hort.** : ➤ **University Gold Medal** for securing 1st class 1st position in M.Sc.(Ag.) Horticulture.

8. Employment Record

Total experience	- 25 years 2 months
a) P.G. Res. Fellow (OUAT)	- 6 years
b) Asst. Professor/equivalent (OUAT)	- 4 years
c) Asst. Professor (SS) (OUAT)	- 5 years continuing
d) Associate Professor (OUAT)	- 10 years 2 months and continuing
e) In-Charge, Tissue Culture Unit	- 5 years 9 months
f) Director, BTC Centre	- 3 years 5 months and continuing
g) HOD, FLS & Director, BTC Centre	- 7 months and continuing

Detail Employment Records

Designation	Pay Scale	Period		Organization	Nature of Duty
		From	To		
Post Graduate Research Fellow	Rs. 1760-2900/-	12.04.91	22.11.93	Medicinal and Aromatic Plants Project, OUAT Bhubaneswar	Research Teaching
Post Graduate Research Fellow	Rs. 1760-2900/-	23.11.93	18.04.97	All India Coordinated Cashew Improvement Project, OUAT Bhubaneswar	Research Teaching
Training Associate, Horticulture	Rs.8000-12000/-	19.04. 97	07.04.99	KVK, Kendrapara, OUAT	Extension Research
Training Associate, Horticulture	Rs.8000-12000/-	08.04.99	18.04.01	KVK, Bhanjanagar, Ganjam, OUAT	Extension Research
Training Associate, Horticulture (SS)	Rs.10,000-12000/-	19.04.01	31.05.01	KVK, Bhanjanagar, Ganjam, OUAT	Extension Research
Jr. Horticulturist (SS)	Rs.10,000-12000/-	01.06.01	30.05.04	AICRP on Betelvine, OUAT, Bhubaneswar	Research Teaching
Jr. Horticulturist (SS)	Rs.10,000-12000/-	31.05.04	28.02.05	AIC on Potato Improvement Project, OUAT, Bhubaneswar	Research Teaching
Assistant Professor (SS) (Horticulture)	Rs.10,000-12000/-	01.03.05	31.03.06	Dept. of Horticulture, OUAT, Bhubaneswar	Teaching Research Extension
Associate Professor (Horticulture)	Rs.12,000-18,300/-	01.04.06	Onwards	Dept.of Horticulture, OUAT, Bhubaneswar	Teaching Research Extension
Associate Professor and in-Charge, Tissue culture Unit	Rs.12,000-18,300/-	06.12.08	31.03.10	Dept.of Horticulture, OUAT, Bhubaneswar	Teaching Research Extension
Associate Prof. and In-Charge Tissue culture unit	26600 + AGP 8,000/-	1.4.10	18.04.11	Department of Floriculture and Landscaping.	Teaching Research Extension
Associate Prof. and In-Charge Tissue culture unit	37400 + AGP 9,000/-	19.4.11	10.11.13	Department of Floriculture and Landscaping.	Teaching Research Extension
Associate Prof. & Director, Biotech-cum-Tissue culture centre	37400 + AGP 9,000/-	11.01.13	Onwards	Department of Floriculture and Landscaping.	Teaching Research Extension
Head of the Department Floriculture and Landscaping & Director, Biotech-cum-Tissue culture centre	37400 + AGP 9,000/-	02.11.15	Onwards	Department of Floriculture and Landscaping.	Teaching Research Extension

9. International Assignment (Overseas visit):

- a) Presented country report on “knowledge management tools for strengthens Agricultural Research and Extension in India” from 4-8.07 to 9.8.07 at Tehran Islamic Republic of Iran, Nominated by Asian Productivity Organization, Tokyo, Japan and Chaired the technical session of study meeting on KM tools for strengthening ARE system at Tehran Islamic Republic of Iran on 8.8.07.
- b) Recently she has attended **29th international Horticultural Congress on “Production and supply chain, Landscape sustainability and Tropical Horticulture” at Brisbane Convention and Exhibition Centre, Queensland, Australia** from 17th-22nd August, 2014.
- c) She has also visited **Asian Institute of Technology, Bangkok** from 14th-15th August, 2014 on her way to Brisbane, Australia.

10. Research contribution/Books/Articles published

a) Publications

- Research papers	:	64
- Scientific popular articles	:	59
- Books/Manuals	:	06
- Book chapters	:	07
- Technical Bulletins	:	10
- Papers presented at International/ National Seminars/Conferences	:	62
- Invited lectures/talks delivered	:	44

b) Post-Graduate and Doctoral Research work

M.Sc.(Ag.) Thesis Title	:	Studies on Varieties of Dahlia (<i>Dahlia variabilis</i> Desf) and storage of tubers
Advisor	:	Prof. Trinath Maharana
Ph.D. Thesis title	:	<i>In vitro</i> multiplication, <i>Agrobacterium</i> mediated transformation and post harvest handling of spikes in Gladiolus.
Advisor	:	Prof. Ranvir Singh
Areas of specialization	:	Floriculture, Tissue culture, Genetic Engineering and Post harvest technology.

c) Experiences in various research projects (9 years and 9 months)

Sl. No.	Name of the Project	Dept. and Name of the organization	Period
1.	ICAR project on Medicinal and Aromatic Plants (Kewda, Palmarosa, Lemongrass and Citronella)	Dept. of Horticulture, OUAT, Bhubaneswar	12.4.91 - 22.11.93
2.	All India Coordinated Cashew Improvement Project (ICAR)	Dept. of Horticulture, OUAT, Bhubaneswar	23.11.93 - 18.4.97
3.	All India Coordinated Research Project on Betelvine, (ICAR)	Dept. of Plant Pathology, OUAT, Bhubaneswar	1.6.01 - 30.5.04
4.	All India Coordinated Potato Improvement Project (ICAR)	Dept. of Plant Breeding and Genetics, OUAT, Bhubaneswar	31.5.04 - 28.2.05

d) Handling of projects

i) As PI: A DST (Biotechnology Division), Govt. of Orissa, Project on “Evaluation of germplasm and *in vitro* cloning of gerbera (*G. jamesonii* Bolus) under Bhubaneswar condition” (12.7.2006 to 31.3.2010).

ii) As PI: A RKVY, Govt. Of Orissa, Project on “Germplasm evaluation & *in vitro* cloning of Anthurium and Lilium” (01.04.2014 onwards).

iii) As PI: A RKVY, Govt. Of Orissa, Project on “Strengthening Biotechnology cum Tissue Culture Centre” (01.04.2016 onwards).

iv) As Co-PI: A DST (Biotechnology Division), Govt. of Orissa, Project on “Collection and evaluation of Rose cultivars under Orissa condition” (12.7.2006 to 31.3.2010).

v) As Co-PI: Central Sector Scheme on “Development and Strengthening of Infrastructural facility for Production and Distribution of quality seeds” under use of “Biotechnology in Agriculture”. Ministry of Agriculture and Cooperation (Seed Division), Government of India (2006 onwards).

vi) As Co-PI: NAIP Project on Betelvine (2001-2003)

e) Guiding of Post-Graduate Students

As Major Advisor

Sl. No.	Name of the student	Thesis topic	Year	Degree
1	Mrs. Pritinanda Samal	<i>In vitro</i> clonal propagation of commercially important house plant dracaena (<i>D. sanderiana</i>)	2004	M.Sc. (Ag.) Agril. Biotechnology OUAT
2	Mr. Jagnyabalkya Mohapatra	Standardization of protocol for <i>in vitro</i> multiplication of turmeric (<i>Curcuma longa</i> L.)	2004	-do-

Sl. No.	Name of the student	Thesis topic	Year	Degree
3	Mr.Srinibash Behera	Standardization of protocol for <i>in vitro</i> propagation of yam (<i>Dioscorea alata</i> L.)	2004	-do-
4	Ms. Susmita Pattnaik	High frequency <i>in vitro</i> clonal propagation of gerbera (<i>G. jamesonii</i> Bolus)	2007	M.Sc.(Ag.) Horticulture OUAT.
5	Ms. Abhilipsa Sahoo	Standardization of surface sterilants and plant bioregulators for <i>in vitro</i> shoot proliferation of ginger (<i>Zingiber officinale</i> Rosc) and turmeric (<i>Curcuma longa</i> L.)	2007	M.Sc. Biotechnology MIITS School of Biotechnology
6.	Ms. Sailendri Ku. Patra	Rapid clonal multiplication of commercial varieties of gerbera (<i>G. jamesonii</i> Bolus) through <i>in vitro</i> technique.	2009	M.Sc. Ag. (Horticulture) OUAT
7	Ms. Tanmayee Shasani	Flowering regulation of <i>in vitro</i> raised hybrid gerbera under shadenet structure	2011	M.Sc. (Ag.), Floriculture and Landscaping OUAT
8	Ms. Priyambada Mohanty	<i>In vitro</i> clonal propagation of an ornamental garden plant <i>Bauhinia galpinii</i> .	2011	M.Sc. Biotechnology Neelachal Institute of Medical Sciences, Bhubaneswar
9	Ms. Ipsita Srichandan	<i>In vitro</i> cloning of an ornamental shrub <i>Bauhinia galpinii</i> for landscaping.	2011	M.Sc. Biotechnology TACT, Utkal Univ., Bhubaneswar
10	Ms. Abhipsa Mishra	<i>In vitro</i> multiplication of an ornamental woody vine <i>Allamanda violacea</i> cv. Cherry Tuhulie for landscaping	2011	M.Sc. Biotechnology TACT, Utkal Univ. Bhubaneswar
11	Abinash Pradhan	Standardization of DNA isolation and RAPD protocol of custard apple	2012	MGR University, Chennai
12	Sri Sairam Meni	Selection strategy for high flower production of gerbera grown under partially modified controlled atmosphere.	2012	M.Sc. (Ag) Floriculture and Landscaping OUAT
13	Subhalaxmi Sahoo	High frequency multiplication of orchids through <i>in vitro</i> culture	2012	M.Sc. (Ag) Floriculture and Landscaping OUAT
14	Lipsa Maharana	Genetic polymorphisim in guava (<i>Psidium guajava</i> L.) through RAPD market	2012	TACT, Bhubaneswar
15	Digbijaya Maharana	<i>In vitro</i> shoot regeneration of hybrid cultivars of gerbera (<i>Gerbera jamesonii</i> Bolus)	2012	M.Tech. Biotechnology GITAM University, Visakhapatnam
16	Soumya Ranjan Parida	Fast protocol for high frequency <i>in vitro</i> cloning of banana var. Grand Naine	2012	M.Tech. Biotechnology GITAM University, Visakhapatnam
17	Vaishnavi Middela	Rapid <i>in vitro</i> cloning of plantain (<i>Musa paradisiaca</i>) cv. Gaja Bantal	2012	M.Tech. Biotechnology GITAM University, Visakhapatnam
18	Malay Ranjan Mishra	<i>In vitro</i> shoot regeneration of commercial cultivars of sugarcane (<i>Saccharum officinarum</i> L.)	2012	M.Tech. Biotechnology GITAM University, Visakhapatnam

Sl. No.	Name of the student	Thesis topic	Year	Degree
19	Itishree Nayak	Standardization of viable protocol for <i>in vitro</i> cloning in sugarcane (<i>Saccharum officinarum</i> L.) cv. 86V 96	2013	M.Sc. Biotechnology TACT
20	Rosysmita Barik	<i>In vitro</i> cloning in sugarcane (<i>Saccharum officinarum</i> L.) cv. Sabita.	2013	M.Sc. Biotechnology, TACT
21	Geetanjali Pradhan	Genetic characterization of gerbera (<i>Gerbera jamesonii</i> Bolus ex Hooker F.) under polyshadenet structure	2013	M.Sc. (Ag.) Floriculture and Landscaping, OUAT
22	Chidananda Sahoo	High frequency <i>in vitro</i> cloning of banana (<i>Musa acuminata</i>) cv. Grand Naine	2014	M.Sc. Biotechnology, MITS, Bhubaneswar
23	Sagarika Muna	<i>In vitro</i> propagation of orchid (<i>Dendrobium formosum</i> Roxb ex Lindl.	2014	M.Sc. (Ag.) Floriculture and Landscaping, OUAT
24	Krishna Dipika Kar	<i>In vitro</i> seed culture of interspecific hybrid in <i>Cymbidium spp.</i> L.	2015	M.Sc. (Ag.) Floriculture and Landscaping, OUAT
25	Promila Marndi	Impact of holding solution on postharvest life of <i>Lilium</i> hybrid.	2015	M.Sc. (Ag.) Floriculture and Landscaping, OUAT
26	Sekurti Badapanda	Perpetuation of <i>Santalum album</i> Linn. Through <i>in vitro</i> techniques.	2016	M.Sc. Forestry (Forest Biology and Tree Improvement), OUAT.
27	Tapan Giri	Nutrient Management in <i>Lilium</i> Hybrids	2016	M.Sc. (Ag.) Floriculture and Landscaping, OUAT
28	Souradeep Acharjee	Impact of PBR 'S in <i>Lilium</i> Hybrids	2016	M.Sc. (Ag.) Floriculture and Landscaping, OUAT
29	Amrita		2016	M.Sc. (Ag.) Floriculture and Landscaping, OUAT

f) Implementable technology generated

- Agro technology of Kewda cultivation.
- Development of hybrid cashew variety. Jagannath
- Use of biofertilizers in betelvine
- Biodynamic and Effective micro-organism in betel vine.
- Viable protocol for *in vitro* clonal propagation of gladiolus
- *In vitro* corm production in gladiolus.
- Post-harvest handling of gladiolus
- Protocol for *in vitro* propagation of dracaena, gerbera, yam, turmeric, ginger, mango ginger and orchids.
- Standardization of viable protocol for *in vitro* multiplication of Banana cv. Amritpani.
- High frequency multiplication of orchid, *Cymbidium* inter specific hybrid through *in vitro* techniques.

g) Patent applied: 13

- *Cashew* nut hybrid cultivar : Jagannath applied for registration
- *Rapid in vitro* cloning of plantain cv. Gaja Bantal
- *In vitro* clonal multiplication of banana cv. G9 (Grand Naine)
- Rapid *in vitro* multiplication in sugarcane cv. Sabita.
- High frequency *in vitro* multiplication in sugarcane cv. 86 V996
- Fast protocol for *in vitro* cloning of sugarcane cv. Co7805
- *In vitro* clonal multiplication of gerbera (*Gerbera jamesonii* Bolus) cv. Shimmer
- *In vitro* protocol for rapid propagation in gerbera (*Gerbera jamesonii* Bolus) cv. Red Star.
- *In vitro* multiplication in turmeric (*Curcuma longa* L.) cv. Roma.
- *In vitro* cloning in turmeric (*Curcuma longa* L.) cv. Surama.
- *In vitro* cloning of banana cv. Champa.
- High frequency *in vitro* multiplication of orchid *Cymbidium bicolor*.
- Rapid *in vitro* multiplication of orchid *Papilionanthe teres*.

h) Tissue cultured plantlets production and resource generation.

Year	Tissue cultured plantlet produced (Nos.)	Revenue generated from Tissue cultured plantlet and training (Rs.)
2008-09	2,150	86,500.00
2009-10	11,736	2,22,400.00
2010-11	3,850	2,68,850.00
2011-12	52,691	5,57,545.00
2012-13	30,492	3,88,953.00
2013-14	1,45,330	9,93,042.00
2014-15	2,35,561	31,32,280.00
2015-16	4,37,235	47,99,757.00
Total	9,19,045	1,04,49,327.00

11. Contribution to Educational Innovation/Design of new courses and curricula

a) Educational innovation

- New technologies generated and new varieties developed are included in the study materials.
- To enrich the knowledge of the students the informations are collected from the books, journals and internet.
- Improved method of teaching by use of OHP and LCD in class as and when necessary.
- Hands-on-session and demonstrations for practical classes in the laboratory

- New tissue culture laboratory is established and standardization of protocols for *in vitro* multiplication of horticultural crops has been started.

b) Courses designed:

M.Sc. (Ag.) Horticulture course
 Ph.D. Horticulture course
 M.Sc. (Ag.) Agril. Biotechnology courses.
 B.Sc. (Horticulture) and M. Sc. (Horticulture) for opening of the New College of Horticulture courses designed as per ICAR guidelines.
 M.Sc. Ag. Floriculture and Landscaping.
 Ph.D. Floriculture and Landscaping.

c) Courses taught

Courses taught : 29 (UG: 12, PG: 12, Ph.D.: 05)

Sl. No.	Title of the courses taught	Level	Credit hours	Period
1	Basic Horticulture (Hort-311)	UG	2+1	1992-95
2	Introduction to Ornamental Horticulture (Hort-615)	UG	2+1	1993-95
3	Principles of fruits and vegetables preservation	UG	2+1	1992-95
4	Cell and Tissue culture (ABT-714)	PG	2+1	2002-05
5	Biotechnology in Horticulture and Forestry (ABT-725)	PG	1+1	2002-05
6	Ornamental Horticulture and Land Scene Gardening	UG	2+1	2002-2011
7	Nursery management, Arboriculture and Plant Propagation	PG	1+1	2005-2009
8	Principles of landscaping and production technology of ornamental plants	PG	2+1	2005 -2009
9	Commercial Flower production (Hort-404)	UG	1+1	2005 -2011
10	Fruit production including plantation crops (Hort-322)	UG	3+1	2005 -2008
11	Fundamentals of Horticulture (Hort-311)	UG	2+1	2005 -2009
12	Floriculture and landscape gardening (Hort-407)	UG	1+1	2005 -2011
13	Ornamental plants and flower arrangement (FRM ID-402)	UG	2+3	2005 -2011
14.	Commercial floriculture	PG	1+1	2009 -2011
15.	RAWE (Rural Agril. Work Experience)	UG		2005 -2012
16.	Production technology of flowers (Hort-212)	UG	1+1	2010 onwards
17.	Landscaping and ornamental garden (FLO-501)	UG	2+1	2010 onwards
18.	Production technology of cut flowers (FLO-505)	PG	2+1	2010 onwards
19.	Advances in flower production technology (FLO-601)	Ph.D.	2+1	2010 onwards
20.	Seed production in vegetable and ornamental	PG	2+1	2009-10
21.	Biotechnology in ornamental plants (FLO-506)	PG	1+1	2010 onwards
22.	Production technology of loose flower (FLO-502)	PG	2+1	2010 onwards
23.	Principles and techniques of flower seed production(FLO- 606)	Ph.D.	2+1	2010 onwards
24.	Protected floriculture (FLO-510)	PG	2+1	2010 onwards
25.	Advances in landscape Architecture (FLO-602)	Ph.D.	1+2	2010 onwards
26	Experiential learning (Hort-624)	UG		2012 onwards
27.	Advances in biotechnology in ornamental (FLO-605)	Ph.D.	2+1	2012 onwards
28.	Advances in protected and precision floriculture-FLO-607	Ph.D	2+1	2010 onwards
29.	Basic concept in Lab Technique – PGS-504	PG&Ph.D	0+1	2010 onwards

d) Other University/Organisation/ ASRB (ICAR) Assignments

- Ph.D External Examiner in the subject of Agriculture science, JJT University, Rajasthan
- Supervisor/Advisor/guide in the subject agriculture science (Spl. Floriculture and Landscaping of Shri Jagadish Prasad Jhabormal Tiberwala University **(Shri JJT Univ.), Rajasthan**
- Supervisor/Advisor/guide in the subject Botany, **Utkal University**
- Supervisor/Advisor/guide in the subject Biotechnology, **SOA University**
- Appointed as question paper setter, examiner and evaluator of B.Sc.(Ag.) course of **Birsa Agriculture University, Kanke, Ranchi.**
- Referee of the Journal of, **ANGRAU, R.. Nagar, Hyderabad**
- Examiner and Evaluator of M.Sc. (Ag.) course of **Santiniketan**
- Question paper setter and evaluator for the higher secondary vocational examination, **Council of Higher Secondary Education, Odisha, Bhubaneswar.**
- As an expert by **ASRB** for creation of question bank for **ARS and NET** in the subject Floriculture and Landscaping
- Question paper setter of the PG (Biotechniques) of **North Orissa University, Baripada.**
- P.G. Thesis evaluator of Department of Horticulture, **BAU, Kanke, Ranchi.**

12. Extension Activities

a) Transfer of technology

1) **Technology transferred to field**

- Agrotechnology of kewda cultivation
- Cultivation of hybrid cashew variety Jagannath
- Use of biofertilizers in betelvine
- Viable protocol for *in vitro* clonal propagation of gladiolus, Gerbera, yam, turmeric, ginger, banana, sugarcane, dracaena, mango ginger and orchids.
- Post harvest handling of gladiolus and gerbera.

2) Imparted numbers of trainings, conducted numbers of FLD and OFT for the farmers/NGO personnels as Training Associate Horticulture in the KVK, Kendrapara and KVK, Bhanjanagar from 19.4.1997 to 31.05.2001

b) Trainings imparted /Talks delivered to scientists/ NGO personnel's / farmers/ CBO/ SHG Leaders/SBI officials – **45 Nos.**

c) Talks delivered in Electronic media (AIR and TV) - **47 Nos.**

d) Important assignments/Participation in college/University

- Attending the duty as horticulture Scientist at ATIC, KCC and AGRI-SAT programme at Directorate of Extension Education, Bhubaneswar.
- Member of IPR Cell, OUAT, Bhubaneswar, 2006-2008.
- Organizing member of Annual Flower Show Committee, Orissa Horticultural Society, OUAT, Bhubaneswar.
- Rapporteur on 26.2.2011 in the technical session 4, integrated pest and disease management as National seminar on biodiversity and sustainability of tropical and subtropical fruit crops 25-27 February, 2011
- Technical Report writing of the Department of Floriculture and Landscaping, OUAT, Bhubaneswar.
- Garden Management of the OUAT, Bhubaneswar, 2005-07
- Management of the tissue culture laboratory of the Department of Horticulture, 2006-2010.
- Rapporteur in Technical session-III (crop and soil informatics) in workshop-cum-Training on "Bioinformatics and its application in agriculture and allied sectors March, 9-11, 2007, OUAT, Bhubaneswar.
- Global conference on Horticulture for Food Nutrition and Livelihood Options 29.05.2012 Convener, Technical session-4, Gene Technology for Crop Improvement in Horticulture, OUAT, Bhubaneswar.

e) Position held leadership role played in organizations linked with Extension:

- Judge in Annual Flower show, organized by NALCO, Bhubaneswar.
- Judge in the flower Arrangement competition of Ladies Hostel No.10 and 11, OUAT, Bhubaneswar.
- Judge in the various events of Annual Athletic Meet of OUAT, Bhubaneswar.
- Judges in the various annual dramatic events of CA, OUAT.
- Chaired the International Technical Session of Study meeting on KM tools for strengthening ARE system at Tehran, Islamic Republic of Iran on 8.8.07.

f) Corporate life:

- Governing Board Member of ATMA, Berhampur, Ganjam.
- Member of Registration Committee of International Seminar on Traditional Knowledge, Health and Environment, 2002.
- Working member of 25th convocation, OUAT, Bhubaneswar- 2004.
- Judge in flower show organized at community centre, Mangala Mandap, Bhubaneswar.
- Organizing member of Annual Flower Show Committee, Orissa Horticultural Society, OUAT, Bhubaneswar.
- Judge in Annual Flower Show organized by Lioness club, Cuttack

- Judge in Annual flower show organized by NALCO, Bhubaneswar
- Judge for State level Citrus and Banana Show- 2002.
- Judge for State Level Vegetable Show –2003 and 2004, Directorate of Horticulture
- Judge in 24th All India Rose Convention and show, Bhubaneswar,2006
- Judge in the flower arrangement competition of College of Home Science, Bhubaneswar
- Judge in the flower arrangement competition of Ladies Hostel No.10 and 11, OUAT, Bhubaneswar.
- Judge for the various events of Annual Athletic Meet of OUAT, Bhubaneswar.
- Member of IPR Cell, OUAT, Bhubaneswar.
- Involved in ATIC and KCC, OUAT, Bhubaneswar.
- Member of Registration Committee and Control Room of Agri-Unifest - 2006.
- Organizing member of 3rd Indian Hort. Congress, November 6-9, 2008.
- Organizing member Global Conference on Hort. May 28-32, 2012.
- Subject Expert Interviewer of viva voce test for Assistant Agriculture Officer under Department of Agriculture.
- Member of Reception & Technical Committee of National Seminar on Plant Genomics and Biotechnology: Challenges and Opportunities in 21st century, 2016.

g) Membership/positions in professional societies

- Life member of J. of Ornamental Horticulture.
- Life member of Indian J. of Horticulture, New Delhi.
- Life member of Orissa J. of Horticulture, Bhubaneswar.
- Life Member of Indian Society of Arid Horticulture, Bikaner, Rajasthan
- Member of Indian Horticulture, New Delhi.
- Life member of Current Agric. Research, Bhubaneswar.
- Executive Councillor for the biennium 2003 and 2004 of Indian Society of Ornamental Horticulture for Eastern Zone
- Member of Asian productivity organization, Tokyo, Japan.
- Life member of NONI foundation, Chennai.
- Asst. Secretary-Orissa Horticultural Society, 2008-2014.

h) Advisory/Editorial/Reviewer of Journals

- Advisory Board Member of International Journal of Agriculture Sciences. Bioinfo Publication (**NAAS-4.10**).
- Reviewer for the 'Journal of Applied Biology and Biotechnology' [ISSN; 2347-212X] Open Science Publishers LLP.
- Editorial Advisory Board Member of International Journal of Current Microbiology and Applied Science (IJCMAS).ISSN:2319-7706 [**NAAS:5.32**]
- Editorial Board Member of International Journal of Food, Agriculture & Veterinary Sciences. CIBTech Publication.
- Editorial Board Member of Journal of Floriculture and Landscaping. Science Flora publication.

- Editorial Board Member of International Journal of Current Research in Biosciences and Plant Biology (IJCRPB) [ISSN: 2349-8072].
- Editorial Board Member of Indian journal of Applied Research, Worldwide Journals Publication.
- Editorial Board Member of International Journal of Scientific Research. Worldwide Journals Publication.
- Editorial Board Member of Paripex – Indian Journal for Research Analysis. Worldwide Journals Publication.
- Editorial Board Member of Global Journal for Research Analysis. , Worldwide Journals Publication.
- Editorial Board Member of International Journal of Research. EPH Publications.
- Editorial Board Member of IRJAFS, Prudent Journals Publication.
- Editorial Board Member of Journal of Environmental science , Computer science and Engineering and technology.[EISSN:2278-179X]
- Editorial Board Member of International Journal of Research in Applied, Natural and Social Sciences. [NAAS:3.3]
- Editorial Board Member, International Journal of Green and Herbal Chemistry (IJGHC) E ISSN -2278-3229

13. Participation in Refresher courses/Summer institutions/Training programme

Sl. No.	Title of the course	Year	Name of the organization
1.	Large Scale cultivation and distillation of Aromatic plants (Palmarosa, Citronella and Lemon grass)	Aug. 5-8, 1991	Regional Research Laboratory, Bhubaneswar
2.	Computer appreciation and programming	July 21 –Sept., 18, 1992 (60 days)	Orissa University of Agriculture and Technology
3.	National Seminar on Plant Biotechnology for Sustainable Hill Agriculture	May. 6-8, 1998	Defence agricultural Research Laboratory, Pithoragarh
4.	ICAR sponsored short course on “ Integrated Nutrient Management of subtropical fruits”	June. 16-25, 1998	Department of Horticulture, G. B. Pant University of Agril. & Tech.
5.	Winter School on “Postharvest Management of Fruits, Vegetables and Flowers”	Sept. 20 -Oct. 10, 2000	Post Graduate School, Indian agricultural research institute, New Delhi, India
6.	Exploitation of underutilized fruits	October 3-23, 2001 (21 days)	Rajasthan College of Agriculture, MPUAT, Udaipur, Rajasthan
7.	Micropropagation of Horticultural and Forestry Species	May 10-30, 2002 (21 days)	Regional Plant Resource Centre, Bhubaneswar, Orissa
8.	Basics of computer Application	June 20 - July 23, 2002 (34 days)	OUAT, Bhubaneswar, Orissa
9.	Biodynamic agriculture	December 1-6, 2003 (6 days)	B K.K. Ravipura, Gujarat.
10.	DUS testing training programme on chrysanthemum, Rose and orchids	Feb.13-16 , 2006 (4 days)	Division of Floriculture and Landscaping IARI, New Delhi.
11.	Gender sensitisation and mainstreaming gender in agriculture and allied sectors by MANAGE	Feb. 12-16, 2007(5 days)	MANAGE, Hyderabad at Directorate of Extension Education, OUAT, Bhubaneswar

12.	Bioinformatics and its application in Agriculture and allied sectors	March, 9-11, 2007 (3 days)	Department of Bioinformatics, OUAT, Bhubaneswar.
13.	Study meeting on knowledge management tools for strengthening agricultural research and extension system	Aug. 4-9, 2007 (6 days)	Asian Productivity Organization, NIPC, Qazvin, Tehran, Iran
14.	Orientation courses on multimedia utilization.	Jun 4-7, 2008	College of Agriculture, OUAT, Bhubaneswar
15.	Training “ Awareness of e-courses for B.Sc. (Hort.) on module platform delivered on-line and off-line”	Mar 13-14, 2014	Dr. Y.S. Parmar Univ. of Horticulture and Forestry, Nauni, Solan at CA OUAT, Bhubaneswar

14. Participation in Seminar/symposia/workshop/conferences

Sl. No.	Name of the Seminar/Workshop	Organizing Institution/venue
1.	Annual Group Meeting of AICRP on Betelvine, Nov 30.- Dec 2., 2001	MPAU, Sangli, Maharashtra
2.	International Seminar on Traditional Knowledge, Health and Environment Feb. 23-24, 2002	OUAT, Bhubaneswar Orissa
3.	State level seminar on Advances in quality planting materials of horticultural crops September 6-7, 2002.	OUAT, Bhubaneswar, Orissa
4.	Annual Group Meeting of AICRP on Betelvine . November 21-23, 2002	NRC for Medicinal and Aromatic Plants, Bariavi, Anand, Gujarat.
5.	National Symposium on Recent Advances in Indian Floriculture, November, 12-14, 2003	KAU, Trichur, Kerala
6.	State level Vegetable Show, Interface Workshop and Seminar. February 5-6, 2004.	Jayadev Bhawan, Directorate of Horticulture, Govt. of Odisha
7.	State level workshop on Floriculture. April, 15, 2004	Udyog Vikas Bhubaneswar, Orissa
8.	State level Seminar on Medicinal and Aromatic Plants, January 11-12, 2005.	OUAT, Bhubaneswar, Orissa
9.	DBT sponsored workshop “Biotechnology-Potentials in Orissa”. Feb. 11-13, 2005	Institute of Physics, Bhubaneswar
10.	State level workshop on Commercial cultivation and processing of aromatic plants for self employment. March 1-2, 2005	Ydyog Vikas, Bhubaneswar, Orissa.
11.	State level Seminar on Post harvest management of flowers in Orissa. July 13, 2005.	TRISA, Bhubaneswar, Orissa
12.	24 th All India Rose Convention and Show. January 14-16, 2006	Orissa Rose Society, Bhubaneswar, Orissa.
13.	3 rd India Horticultural Congress November 6-9, 2008 on New R&D initiatives in horticulture for accelerated growth and prosperity	OUAT, Bhubaneswar
14.	State level Seminar on Scope and Prospect of Commercial Rose Cultivation in Orissa on 24.01.2009	Orissa Horticulture Society, OUAT, Bhubaneswar
15.	National Level Flower Exhibition-cum-Workshop on 9-11 Jan. 2009.	RPRC, Bhubaneswar, by NHB
16.	National seminar on biodiversity and sustainability of tropical and subtropical fruit crops 25-27 February, 2011 Rapporteur on 26.2.2011 in the technical session 4, integrated pest and disease management.	Odisha Horticultural Society, OUAT, Bhubaneswar

17.	Global conference on Horticulture for Food Nutrition and Livelihood Options , May, 28-31, 2012 Performed registration duty and also participated	OUAT, Bhubaneswar
18.	Workshop on Post-harvest care and value addition of horticulture crops May 11, 2012 Resource person and Rapporteur of the Session-II	Directorate of Horticulture, Govt. of Odisha
19.	Workshop on District level Vegetable and flower Exhibition, Kendrapada. February 1-2, 2013	Asst. Directorate of Horticulture, Kendrapada
20.	XI Agriculture Science Congress on Agriculture Education: Shaping India's Future, February 7-9, 2013	National Academy of Agriculture Science at OUAT, Bhubaneswar
21.	Workshop on Hi-Tech Vegetable and Flower Cultivation in Odisha, January 5-6, 2014	Directorate of Horticulture, Govt. of Odisha
22.	National Seminar on Plant Genomics and Biotechnology: Challenges and Opportunities in 21 st Century. 2016.	Dept. of Agricultural Biotechnology, C.A., OUAT, Bhubaneswar
23.	National Seminar on Horticultural Diversity for Prosperity, 10-12 th February, 2016.	Orissa Horticultural Society & Dept. of Hort., OUAT, Bhubaneswar
24	3 rd International Virtual Congress-2016 05 th Aug to 10 th Aug 2016	Virtual Congress, ISCA

15. Participation in International Study meeting

- Participated at the study meeting on “Knowledge Management Tools for strengthening Agricultural Research and Extension system” at **Tehran Islamic Republic of Iran** from 4-9 August, 2007. Selected by Asian Productivity Council (APO, Tokyo, Japan).
- Attended 29th international Horticultural Congress from 17th-22nd August, 2014 t **Brisbane, Australia**.
- Visited **Asian Institute of Technology, Bangkok** from 14th-15th August, 2014.

16. Awards

- **Received Alaka Manjari Rath Best Women Scientist Award for the year 2013, from His Excellency, Dr. S. C. Jamir, Hon'ble Governor of Odisha on the Foundation Day of OUAT (24.08.2013)**
- Pradhan, G., **S. Beura** and P.N. Jagadev, 2016. Production Behaviour of Gerbera (*Gerbera jamesonii* Bolus ex Hooker F.) Cultivars under poly-shade net structure. National Seminar on Horticultural Diversity for Prosperity. 10-12 Feb 2016. The Orissa Hort. Soc. OUAT, Bhubaneswar. [**Best presentation award, oral**]
- Acharjee, S., **Beura,S**, S.K., Palai, S.K. and Giri, T.K. 2016. Protected cultivation of rose is highly remunerative. In: *National Seminar on Horticultural Diversity for Prosperity*. 10-12th 2016February, OUAT, Bhubaneswar, Pp: 247 [**Best presentation award, poster**]
- Das, C.K., Mahapatra, S.S., Harke, A., Sahoo, B. and **Beura, S**. 2016. Analysis of Upstream – DNA- Sequence elements of ROP-Gtpase Encoding genes in

watermelon (*Citrullus lanatus*) Genome. **In: National Seminar on Horticultural Diversity for Prosperity.** 10-12th 2016 February, OUAT, Bhubaneswar. [**Best presentation award, oral**]

- Marandi, P., Toppo, R. and **Beura, S.** 2016. Impact of floral preservatives on the floral quality and flower longevity of cut liliium hybrids. **In: National Seminar on Horticultural Diversity for Prosperity.** 10-12th 2016 February, OUAT, Bhubaneswar, Pp: 227.[**Best presentation award, poster**].

17. Hobbies

- Publishing research articles and popular articles in different reputed journals and news papers
- Gardening,
- Garden designing.
- Preparation of preserved product
- Flower arrangement
- Bonsai
- Flower drying

I hereby declare that all particulars given above are true to the best of my knowledge and belief.

Place : Bhubaneswar

Date :

(SASHIKALA BEURA)