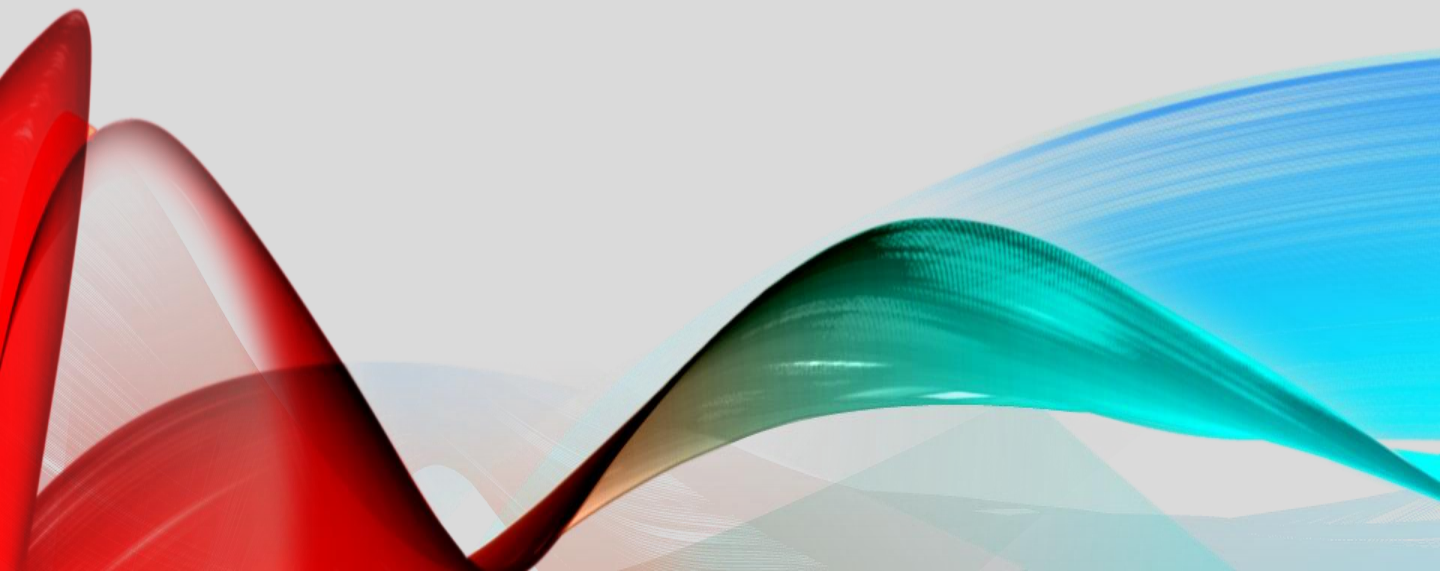




BIODIVERSITY AUDIT



Chitkara University, Punjab Campus

Biodiversity audit

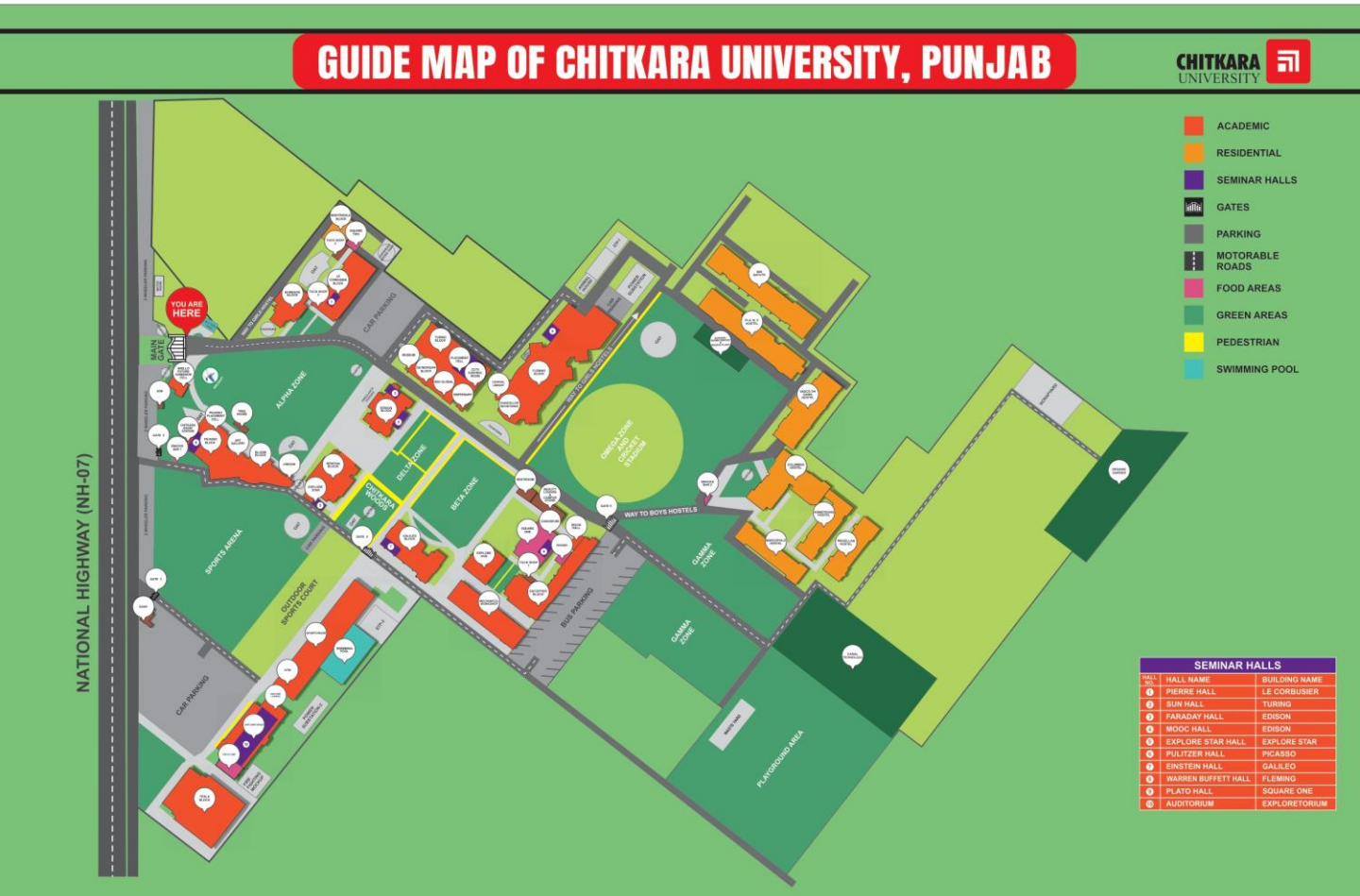
S. No.	Measure Used	Yes- No/Percentage	Document attached
1.	<div>• College campus has at least 20% of the non-built area as vegetative area (Yes/No)</div> <div>Points: 02</div>	Yes	<div>Calculation showing the vegetative area of the campus which includes trees, shrubs and ground cover excluding the playground area and total area.</div> <div>-Photographs of the vegetated area</div> <div>-Site plan highlighting the vegetated area</div>

Total area of the campus = 63.5 acre

Green belt (vegetative area) = 20 acre

Around 31% of the non built is covered under vegetative area (green belt)

Site plan showing the vegetated area



Photographs of the vegetated area











S. No.	Measure Used	Yes-No/Percentage	Document attached
2.	<ul style="list-style-type: none">• At least 30% of the non-built area is covered with tree foliage (excluding the playground) Points: 02Or• More than 50% of the non-built area is covered with tree foliage (excluding the playground) Points: 04		<ul style="list-style-type: none">• Number of trees in the non-built area.• Calculation of total area covered with trees.• Photographs of the tree covered area.

Number of trees in non built area = 9456
Calculation of trees covered area = 10%
Total area of the campus = 63.5 acre
Area of tree cover in non built area = 6.7 acre

Photographs of the tree cover area









S. No.	Measure Used	Yes-No/Percentage	Document attached
3.	Identification of species of plants/birds/small animals, done (Yes/ No) Points: 02	Yes	Document named inflorescence (flower book) is attached in attachment. Another document named Birds In and Around depicts the species of birds on the campus.
	<ul style="list-style-type: none"> If there are proper signs showing the scientific names and uses of each plant and tree?(Yes/No) Points: 01	Yes	Pictures of sign boards with scientific names and uses mentioned on them.

Book cover of flowering book of Chitkara University



Mr. Hamid Raza is a trained and Experienced Horticulturalist, who is having more than 20 years of experience in various positions related to the development and research in the field of Horticulture. Mr. Raza has completed his Bachelor degree in Agriculture in 1996 and One year diploma in Gardening, Floriculture and Landscape and Special Training in Organic and Hydroponics farming with MSME.


Mr. Raza is currently working as a Sr. Horticulturist at Chitkara University, Punjab.




Brig (Dr) PS Siwach (Retd) is a rare brand of soldier- academician. He served in the Army for 34 years, in various command and staff appointments, thereafter took voluntary retirement and joined the Academic world in June 2008. He has served in appointments of Director, Pro Vice Chancellor and Vice Chancellor level in various prestigious Universities. Presently he is Pro Vice Chancellor (Administration) of Chitkara University (Punjab).

He is a keen environmentalist, photographer, painter, writer and golfer.

ISBN: 978-93-82782-40-7



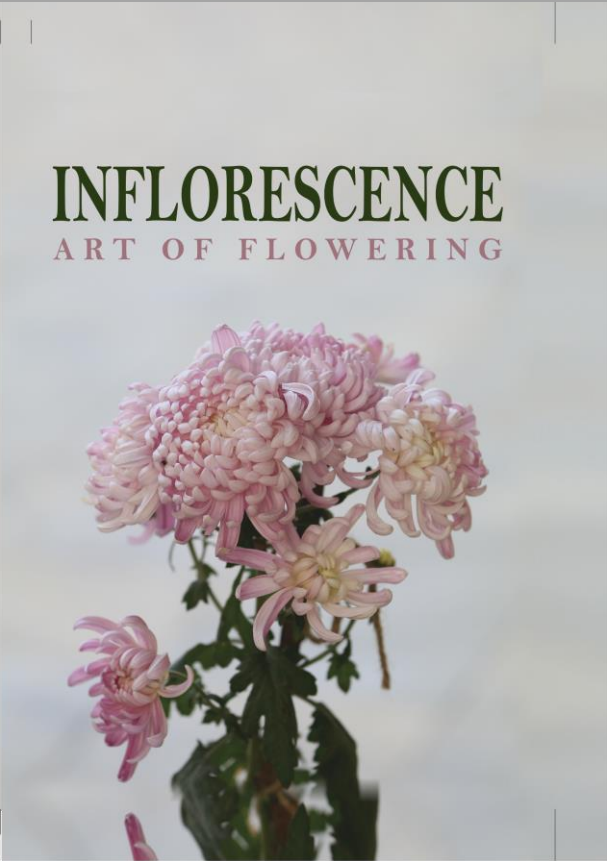
978-93-82782-40-7



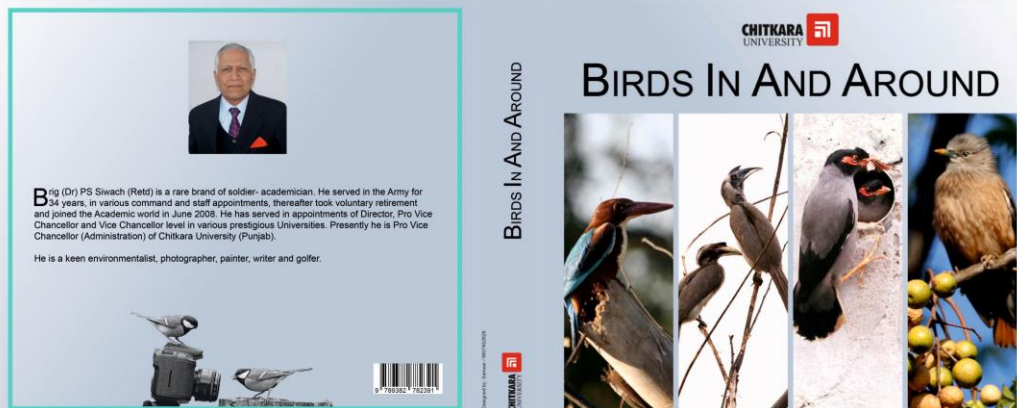
CHITKARA UNIVERSITY

INFLORESCENCE

ART OF FLOWERING



Book cover of Bird book of Chitkara University



Pictures of the sign boards showing scientific name and other details of the trees







Compost getting ready through fallen leaves





S. No.	Measure Used	Yes-No/Percentage	Document attached
6.	• Is there any tree in the college campus which has concrete boundaries and requires deconcretization? (Yes/No)	No	--
	• Has there been any restoration of trees done?(Yes/No) Points: 02	No	

S. No.	Measure Used	Yes-No/Percentage	Document attached
7.	<ul style="list-style-type: none"> Is there a garden/natural space like Herbal garden/Kitchen garden/Butterfly garden in the college campus? (Yes/No) Points: 02	Yes	<ul style="list-style-type: none"> A brief account on the type of garden, types of species and how the students are getting educated through it. Pictures of the garden A brief account on the garden and types of species.

There is a herbal garden in the Chitkara University. The following is the list of species of plants sown in the herbal garden for student's awareness. Sign boards are put with every plant species for better understanding and learning of the students.

Sr. No	Plant Name	Qty
1	<p>Safed Musali (Chlorophytum borivilianum) Family - Asparagaceae Uses – Arthritis, Diabetes, Boosting vitality Part Used - Root</p>	2
2	<p>Har – shrigar (Parijat) (Nyctanthes arbor-tristis) Family – Oleaceae Uses – Sciatica, Arthritis & Fever Part Used – Leaves & Flower</p>	2
3	<p>Jatropha (Jatropha Integerrima) Family – Euphorbiaceae Uses – Skin, Cancer & Digestive system Part Used - Seeds</p>	1
4	<p>Cardamom (Elaichi) (Elettaria cardamomum) Family – Zingiberaceae Uses – Aromatic Part Used – Fruit & Fruit seed</p>	2

5	Indian bail (Bel Patra plant) (Aegle Marmelos) Family – Rutaceae Uses – Traditional medicine Part Used – Leaves, roots, fruits, & seed	1
6	Chandni (Crape Jasmine) (Tabernaemonta divaricata) Family – Apocynaceae Uses – Cough, inflammation prevents. Part Used – Leaves & flower	2
7	Sahadeva (Vernonia omygdalina) Family – Asteraceae Uses – Diarrhoea, Abdominal pain Part Used – Aerial Parts	1
8	Sadabahar (Vinca) (Catharanthus roseus) Family - Apocynaceae Uses – Anticancer, diabetes Part Used – whole Plant	1
9	Aloe vera (Aloe vera) Family – Asphodilaceae Uses – Hair loses, hemorrhoids, digestive Part used – Leaves & Juice	1
10	Giloy (Tinospora cardifolia) Family – Menispermaceae Uses – reduce Fever, Immunity Booster Part Used – Stems	1
11	Haldi (Indian Saffron) (Carcuma longa) Family – Zingiberales Uses – Cosmetics, Depression, High cholesterol, & liver disease Part Used - Roots	1
12	Honey suckle (Honey suckles) Family – Carpifoliaceae Uses – Urinary disorder, headache, diabetes Part Used – Seed, Flower & leaves	1
13	Spearmint (Mentha spicata) Family – Iamiaceae Uses – Aromatic Oil Part Used – Leaves	1

14	Datura (Datura Stramonium) Family – Solanaceae Uses – Stomach & intestinal pain Part Used – Seed	1
15	Peppermint (Mentha piperita) Family lamiaceae Uses - Aromatic oil & carminative Part Used – Aerial parts	1
16	Brahmi (Bacopa monnieri) Family – Plantaginaceae Uses – Neurological tonic Part Used – Plants	1
17	Black Aloe (Aloe perryi) Family – Liliaceae Uses – Treatment of skin disease Part Used - Juice	1
18	Pili chameli (Jasmine humile) Family – Oleaceae Uses - Treatment of Ringworm & sirus Part Used – Flower & leaves	1
19	Amaltas (Cassia fistula) Family – fabaceae Uses – Asthma Antileprotic, Part used – Roots & Fruits	2
20	Sarpagandha (Rauioolfia serpentine) Family – Apocynaceae Uses – Antihypertention Part Used – Roots	1
21	Madhu Malti (Combretum indicum) Family – Combretaceae Uses – Anti diabetic Part Used – Whole Plant	1
22	Indian Hemp (Canabis sativa) Family – Cannabaceae Uses – Psychoatic drug Part useds – Leaves, flower	1

23	Shatavri (Sparagus sacemosus) Family – Liliaceae Uses – Immuno moducator Part Used - Roots	1
24	Tulsi (Basil) (Ocimum sanctum) Family – lamiaceae Uses – Traditional Medicine Part Used - Aerial parts	1
25	Ashwagandha (Withania solanaceae) Family – solanaceae Uses – Stress, anxiety, diabetes, Pain Part Used – Roots & Fruits	1
26	Jatropha curcas (Jatropha curcas) Family – Euphorbiaceae Uses – Biodiesel Part Used – Seeds	1
27	Karonda (Carissa carandus) Uses – Diarrhea, fever Part Used – Fruit	1
28	Yellow Oleander (cascabela thevetia) Family - Apocynaceae Uses – Toxicity, Cardioactive Part Used - Leaves & Fruit	1
29	Puth kanda (Achyranthes aspera) Family – Amaranthaceae Uses –Diuretic Part Used –Whole Plant	1
30	Pomegranate (Punica granatum) Family - Lythraceae Uses – Prostate cancer, Breast cancer etc Part Used – Fruit, Flower & Leaves	1
31	Bougainvillea (Paper flower) (Bougainvillea spectabilis) Family – Nyctaginaceae Uses – Anticancer, anti diabetic, anti oxidant Part Used – flower & Leaves	2
32	Karri Patta (Murraya Koenigii) Family – Rutaceae Uses – Loosing weigh, Sharpen memory etc. Part used – Leaves	1

Photographs of the herbal garden







S. No.	Measure Used	Yes-No/Percentage	Document attached
8.	<ul style="list-style-type: none"> • Awareness about the indigenous species • Do you have 75% of the native species of plants and trees on the campus? (Yes/No) Points: 02 	Yes	<ul style="list-style-type: none"> • A list of all the species of the plants and trees. • Pictures of the indigenous species.

LIST OF PLANTS 2022		
Sr. No.	Plant Name	Qty.
1	ASHOKA	239
2	CASIA FISTULA	27
3	CALENDRA	64
4	FICUS VIRENS (PILKHAN)	7
5	PLUMERIA ALBA	52
6	FICUS BENJAMINA	1270
7	THEVITIA PERUVIANA(KANER)	69
8	ROYAL POINCIANA(GULMOHAR)	42
9	JACKRANDA	37
10	CHINABERRY(BAKAN)	30
11	Azadirchita indica (NEEM)	13
12	Phyllanthus embica (aanvala)	16
13	Terminallia arjuna (ARJUN)	40
14	Terminallia bellirica(bahera)	7
15	Alostoniacholaris(Saptparani)	5
16	Toona ciliata (Tun)	3
17	Bauhinia veriegata (kachnar)	13
18	Syzygium cumini(Jamun)	33
19	Erinrhina indica	5
20	Mimusops elengi (Molsery)	43
21	largestomia	50
22	Eucalyptus	4225
23	Chakrasia	5
24	Gravellia robusta(Silver ock)	15
25	Mogni	1
26	Banyan	1
27	Curripatta	2
28	Ticoma gulaca	4
29	Mango	26
30	Bottle Palm	52
31	Fishtail Palm	11
32	Casia javanica	2
33	Ficus religiosa (Pipal)	5
34	Prosopis juliflora(Curajia)	2
35	Dalbergia sissoo (Shisham)	19
36	Pongamia pinnata	14
37	Mulberry	2
38	Prerospermum acerifolium	1
39	Murraya paniculata	15
40	Bottle brush	36

41	Phonix palm	203
42	Guvava	9
43	Junipress	17
44	Araucaria	5
45	Hemelia	30
46	Chandni	26
47	Casurina	60
48	Golden Bottle brush Topiriese	55
49	China palm	12
50	Hibiscus	519
51	Areca palm	191
52	Thuja orientis	9
53	Tikoma	3
54	Orange mini	6
55	Cycus palm	6
56	Casia eculaformis	2
57	Kanjeer	11
58	Rudraksh	5
59	Bamboo	1
60	Bougainvillia	380
61	Rose	300
62	Copper bottle brush	35
63	Golden Bottle brush	125
64	Ratrani	70
65	Washingtonia	255
66	Idian Pine	8
67	Menierrecta	100
68	Bismarkia Palm	5
69	Foxtail Palm	4
70	Raphis Palm	95
71	Avacado	18
72	Lichi	7
73	Plum	22
74	Red Apple Ber	44
75	Chikoo	14
76	Thai Guvava	24
77	Mulberry	5
78	Anjeer	14
79	Palm Granate	12
80	Dragan fruit	30
81	Kiwi	6
82	Custard Apple	20
83	Badam	20
84	Jack fruit	20
85	Conocarpus	150
Total Plants		9456