Botanical Garden

A botanical garden or botanic garden is a garden dedicated to the collection, cultivation, preservation and display of an especially wide range of plants, which are typically labelled with their botanical names. It may contain specialist plant collections such as cacti and other succulent plants, herb gardens, plants from particular parts of the world, and so on; there may be greenhouses, shade houses, again with special collections such as tropical plants, alpine plants, or other exotic plants. Most are at least partly open to the public, and may offer guided tours, educational displays, art exhibitions, book rooms, open-air theatrical and musical performances, and other entertainment.

Botanical gardens are often run by universities or other scientific research organizations, and often have associated herbaria and research programmes in plant taxonomy or some other aspect of botanical science. In principle, their role is to maintain documented collections of living plants for the purposes of scientific research, conservation, display, and education, although this will depend on the resources available and the special interests pursued at each particular garden. The staff will normally include botanists as well as gardeners. In pursuance of the quality initiations our college established a botanical garden.

The college garden contains a wide variety of plants such as flowering plants, ornamental plants, fruiting plants, woody plants, botanically important plants and medicinally important plants. Plant community is create aesthetic and greenery atmosphere for the students and pleasant their minds. These plants are collected from nurseries, students, villages, NGOs and growing with the support of students of the college. The college administration and staff has been supporting green initiatives of the college and cooperate in frequent plantation programmes in the college.

COLLEGE GARDEN WITH QR CODE SYSTEM

Title every plant with QR code images in print forms on iron or plastic materials and tag them to each plant.

Objective of the program

Title every plant with QR code images for the easy and quick accessibility of the information about the plants we are seeing.

Context of the program

The need of this practice starts with the plantation and their nourishment of what has happened in our institution in recent years. The Paloncha area is located in the premises of Major & Small Industries such as Kothagudem Thermal Power Station, National Mineral Development Corporation Ltd, Nava Bharat Ventures Ltd. , Sponge Iron Limited etc. and these industries apparently cause air and dust pollution surrounding areas. Our college is also located in the vicinity of these Industries and has to sustain or tolerate the campus as pollution-free. For this significance another best practice is adopted to maintain the campus eco-friendly with a variety of plant communities that act as pollution combating agents. Consequently this activity also engages the students in social responsibility activities and needs to know the plant's information.

THE PRACTICE: -

Planning of the program to resolve the issues:

- It is decided to plant a variety of plants such as Medicinal valued plants, Ornamental plants, botanically important plants & Environmental supporting plants.
- The Department of Botany along with the staff and students planned to maintain a Botanical Garden and College Garden in the campus and every plant is recorded with a separate QR code about the features and characteristics of the plant.
- In the practice, the Ecoclub cell and NSS Unit of the college supervise the planting, maintenance of the plants.

- The Students belonging to Science stream along with the other students are planning to collect the plants from nurseries or their home premises and plant in the college campus and also they have to involve in the clean & green programs for the proper maintenance.

Involvement of stakeholders in the program:

- All the students are encouraged to involve actively in the plantation & maintenance of the garden.
- All the staff members are involved in the programs initiated by the Eco club & NSS Unit of the college.
- Alumni is participating in the plantation programs
- NGOs, Forest Department, Prohibition & Excise Department and other local people representatives are involved in the programs organized by the college.
- College is collaborated with the Forest Department, Prohibition & Excise Department, and NGOs to maintain the campus Eco friendly.
- Regular practice of participation in "Haritha haram" an initiative program of the Government of Telangana is planned.

Evidence of success

- With the initiative of the program, so far 3500 plants are planted in the campus and more than 3000 plants have survived with continuous Clean and Green programs and maintenance of the garden. With the facility of a Botanical garden in the campus, students of the Biological stream are comprehended about the plants. With QR code system, students are well aware instantly of the plant features, description, uses, etc.,
- The massive greenery in the campus also helped to sustain pollution-free air as part of an eco-friendly environment.
- The college is giving a pleasant atmosphere for the students and staff and complete information about the plants and their characteristics and uses.

Problems encountered and resource required

During the practice we have not noticed big problems as this is taken up by all stakeholders responsibly and involved in the program.

Model QR code and its succession of information:

QR Codes are 2D barcodes that are easily scannable via a smartphone with the assistance of different apps. Application of QR codes is being used in many botanical gardens, nature trails, and parks. This is due to the plenty of reasons, advantages of QR Codes in now days.

The QR Codes can link detailed information and aspirant can link a QR Code to a text, website URL, an image, or a video. The QR Codes are damage resistant as they can resist slight to severe damages and keep their scanning capability intact in an environment of a garden. The QR Codes are also readable from any direction and delimits angular difficulties. The QR Codes occupy very less space and can easily be placed on any small size plants. Thus the QR code system makes efficient Plants Map that will be easy and affordable to under custom, interactive plant tags or signs.

With the multiple applications of QR codes system for Botanical Garden Department of Botany, Government Degree College has taken front foot implement this for college garden as this contains plants of botanical study scope, rare plants, ornamental and medicinal plants. The system is mainly adapted to knowledge and motivates the stakeholders of the college and local surrounding people to learn more about the plants and their nature.

The QR code system of the college offers the information pertain to the concerned plants that growing in the college campus from plant local name, plant scientific name, hybrids, classification, occurrence, Origin and distribution, morphology, familiar characteristics, Cultivation, Significance in different religions, different uses like traditional, Culinary use, Safety issues, chemical constituents to medicinal importance.

List of Exist Plants

A) Avenue Plants

S.No.	Scientific Name	Common Name	Number
1	*Alstonia scholaris*	Devil tree, Saptaparni tree	60
2	*Manihot esculenta*	[illegible] Cassava	15
3	*Albizia lebbeck*	Lebbek	20
4	*Terminalia catappa*	Indian almond, China Almond	20
5	*Nyctanthes arbor-tristis*	Parijat	10
6	*Millingtonia hortensis*	The Indian cork tree	30
7	*Saraca asoca*	Sita Ashok	10
8	*Dypsis lutescens*	Areca palm	10
9	*Cycas revoluta*	Palm tree	15
10	*Ixora coccinea*	Cloth Plant	20
11	*Tectona grandis*	Teak	120
12	*Cocos nucifera*	Coconut	30
13	*Hibiscus rosasinensis*	Gudhal, Chinese Rose	70
14	*Pongamia pinnata*	Pongam tree	60
15	*Lagerstroemia indica*	[illegible]	40
16	*Mimosa pudica*	Touch me not	10

17	*Jasminum sambac*	మల్లి, Jasmin	10
18	*Alangium salviifolium*	వెల్ల ఉడుగు, Udugu Anke	20
19	*Terminalia arjuna*	నల్ల మద్ది, Nalla maddi	10
20	*Dalbergia sissoo*	శీశమము చెట్టు, Shisham	30
21	*Pterocarpus santalinus*	ఎర్ర చందనం, Red sanders	8
22	*Bauhinia acuminata*	దేవ కాంచనం, Bauhinia	20
23	*Bougainvillea glabra*	కాగితం పూలు చెట్టు, Paper flower	25
24	*Phoenix sylvestris*	ఈత చెట్టు, Silver date palm	20
25	*Bambusa vulgaris*	పెద్దగు వెదురు	10
26	*Elaeocarpus ganitrus*	రుద్రాక్ష, Rudraksha	5
27	*Crossandra infundibuliformis*	కనకాంబరం, Kanakambaram	10
28	*Mimusops elengi*	పొగడ చెట్టు, Bakula	60
29	*Nerium oleander*	గన్నేరు, Ganneru	100
		Total Plants	2422

B) List of Medicinal Plants

S.No.	Name of the plant	Common Name	Quantity
1	*Aloe vera*	కలబంద, Aloes	40
3	*Senegalia rugata*	కొండ	10
3	*Curcuma longa*	పసుపు, Turmeric	5
4	*Citrus*	నిమ్మ, Nimma	5
5	*Catherantihus roseus*	బిళ్ళ గన్నేరు, Billa Ganneru	10
6	*Ocimum*	తులసి, Tulasi	50
7	*Phyllanthus emblica*	ఉసిరి, Amla	70
8	*Azadirachta indica*	వేప, Neem	20
9	*Ficus benghalensis*	మర్రి, Marri, Banyan	2
10	*Ficus religiosa*	రావి చెట్టు, Ravi	5

C) List of Fruit Plants

S.No.	Name of the plant	Common Name	Quantity
1	*Achras sapota*	ಚಿಕ್ಕು, Sapota	5
2	*Punica granatum*	ದಾಳಿಂಬೆ, Pome granite	30
3	*Mangifera indica*	ಮಾವಿನ, Mango	10
4	*Syzygium cumini*	ನೇರಳೆ, Neredu	15
5	*Annona squamosa*	ಸೀತಾಫಲ, Custard Apple	60
6	*Psidium guajava*	ಪೇರಲ, Guava	50
7	*Musa paradisica*	ಬಾಳೆ, Banana	100
8	*Artocarpus heterophyllus*	ಹಲಸು, Jack fruit	8
9	Ficus carica Fig	Anjeer	1
10	Betel	Paan	2
11	*Annona muricata,*	Laxman Fruit	1

D) List of Ornamental Plants

S.No.	Name of the plant	Common Name	Quantity
1	*Duranta erecta*	దుండి, Duranta	200
2	*Rosa*	గులాబి, Rose	115
3	*Thuja occidentalis*	తూజా, White Cedar Plant	20
4	*Chrysanthemum*	చామంతి, Chamanthi	5
5	*Phlebodium aureum*	పెర్న్ మొక్క, Garden Fern	10
6	*Tradescantia spathacea*	Rhoeo, బోట్ మొక్క, Boat Lili,	100
7	Plectranthus scutellarioides	Coleus, మురాయి చేమ	250
8	Gymnocalycium mihanovichii	చంద్ర కాక్టస్ మొక్క, Moon Cactus Plant	80
9	*Adenium obesum*	సలాం గులాబి, Salm-Dyck	10
10	*Euphorbia mili*	కాక్టస్, Cactus type	30
11	*Codiaeum variegatum*	కేడయం క్రోటన్, Croton	10
12	Furcraea foetida	Green Aloe	5
13	*Areca catechu*	Palm	5
14	Vietchia	Merl Green Palm	5
15	*Roystonea regia*	Royal Palm Trees	6

16	Terminalia mantaly	Variegated Madagascar Almond	5
17	*Conocarpus*	Damas plant	5
18	*Pimenta dioica*	Jamaica Pepper	2
19	Cinnamon	Dalchini	1
20	Excoecaria bicolor variegata	Chinese Croton	5
21	Dracaena Mahatma plant	Dracena plant	5
22	Schefflera	Umbrella tree	5
23	Ujjenia Plant	Ujjeni	6
24	Aralia Plant	Aralia	6
25	Tabernaemontana divaricata	TMC plant	2
26	Plumbago auriculata	Chitramala	5
27	Syngonium	Syngonium	2
28	*Codiaeum variegatum*	Croton	3
29	Lycoris radiata	Spida Lilly Plant	5

DATE OF THE EVENT: **18.03. 2021**

RESOURCE PERSON/ CHIEF GUEST: **Dr.Y. Chinnappaiah – Principal & Dr.R. Suman Kumar, PDF – Osmania University, GSP member –UN-FAO**

OBJECTIVES OF THE PROGRAM:

Government Degree College, Paloncha always take first step towards the multi-dimensional development of the students and faculty members. In this Scenario a National Webinar is organised on Ethhnobotany and Pharmacognosy with the Resource Person - **Dr.R. Suman Kumar, PDF – Osmania University, GSP member –UN-FAO & General secretary of Genesis Urban and Rural Development Society, Hyderabad.**

BRIEF DISCRIPTION:

Department of Botany & IQAC of the college is conducted a National Webinar on Ethhnobotany and Pharmacognosy. The resource person of this program - **Dr.R. Suman Kumar** in the first session explained the prime importance of Ethnobotany – Ethno medicine, a tribal medicine system. In the second session the resource person given extensive speech on his experiences with Ethnobotany and todays modern medicine system that include plants that deeply associated with tribal communities in interior villages – Pharmacognosy. The lecture describes important qualities of medicinal plants that rarely occur. The lecture strictly stressed importance of medicinal plants that every botany students see and observe every day. All the students of GDC – Paloncha and many Botany teachers from our state and other states participated in the program. Participation certificated issued to the all participants.

GOVERNMENT DEGREE COLLEGE PALONCHA

Affiliated to Kakatiya University, accredited by NAAC

A National Webinar on

Ethnobotany and Pharmacognosy
An Endangered Branch of Sciences

Organizing by Dept. of Botany

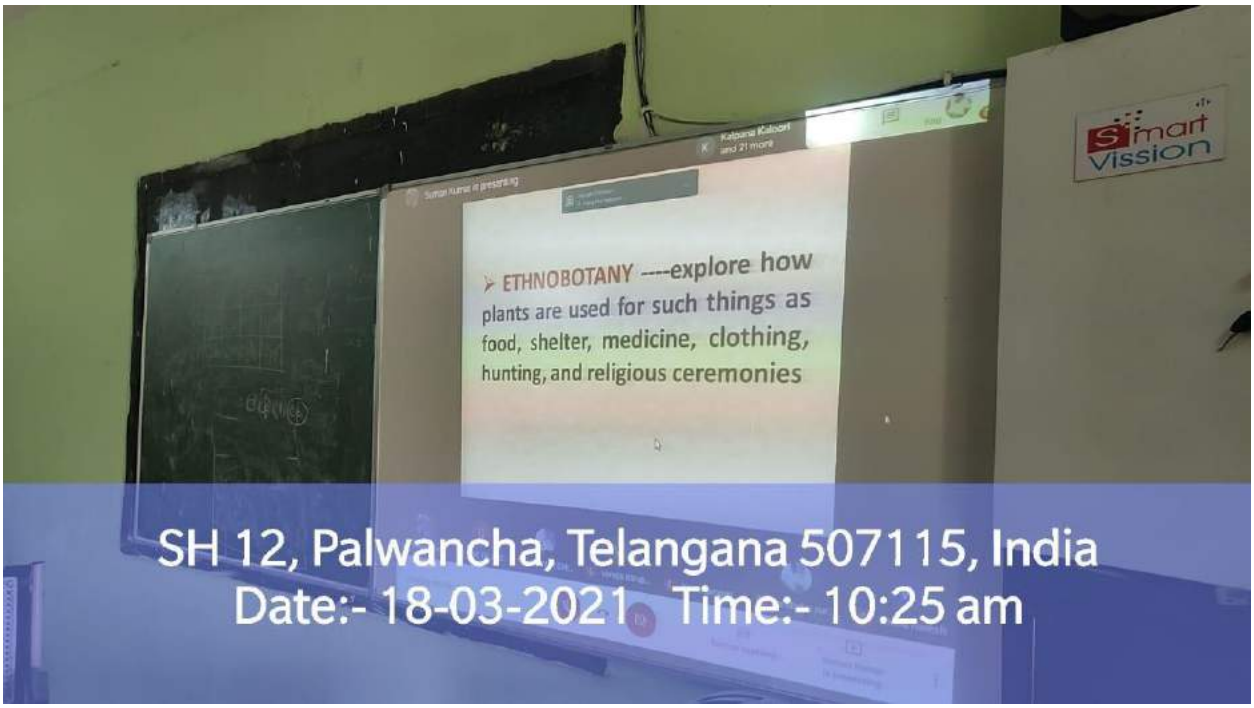
on Thurseday 18th March, 2021 @ 10 AM

Resource Person
Dr. R. SUMAN KUMAR
GSP Member. UN-FAO Italy, Rome
Gen. Sec. Genesis Urban and
Rural Development Society

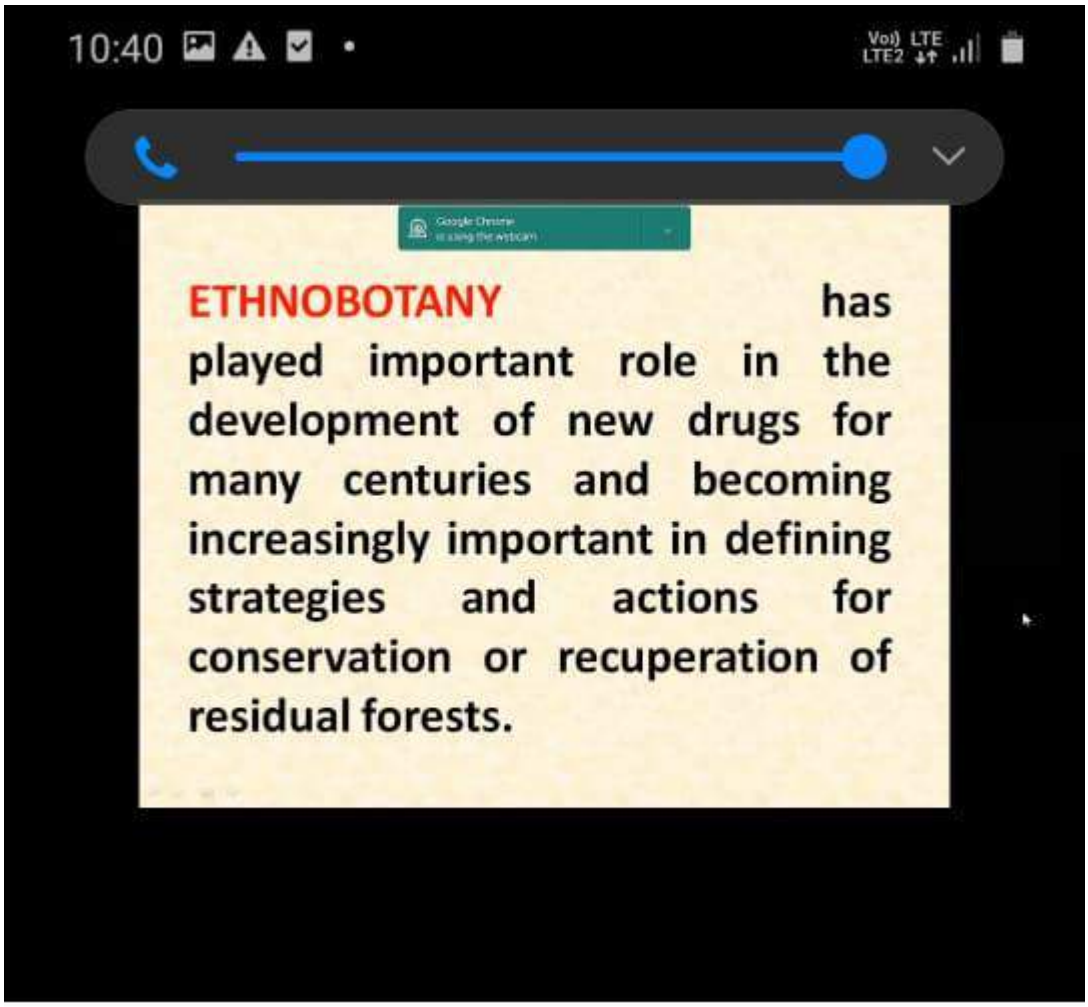
Chairman
Dr. Y. Chinnappaiah
PRINCIPAL
GDC Paloncha.

Convenor
Dr.M. Poornachander Rao
Asst. Prof. of Botany
& IQAC Coordinator

Meet https://meet.google.com/iqe-xhac-quj



Students of GDC Paloncha participate in the webinar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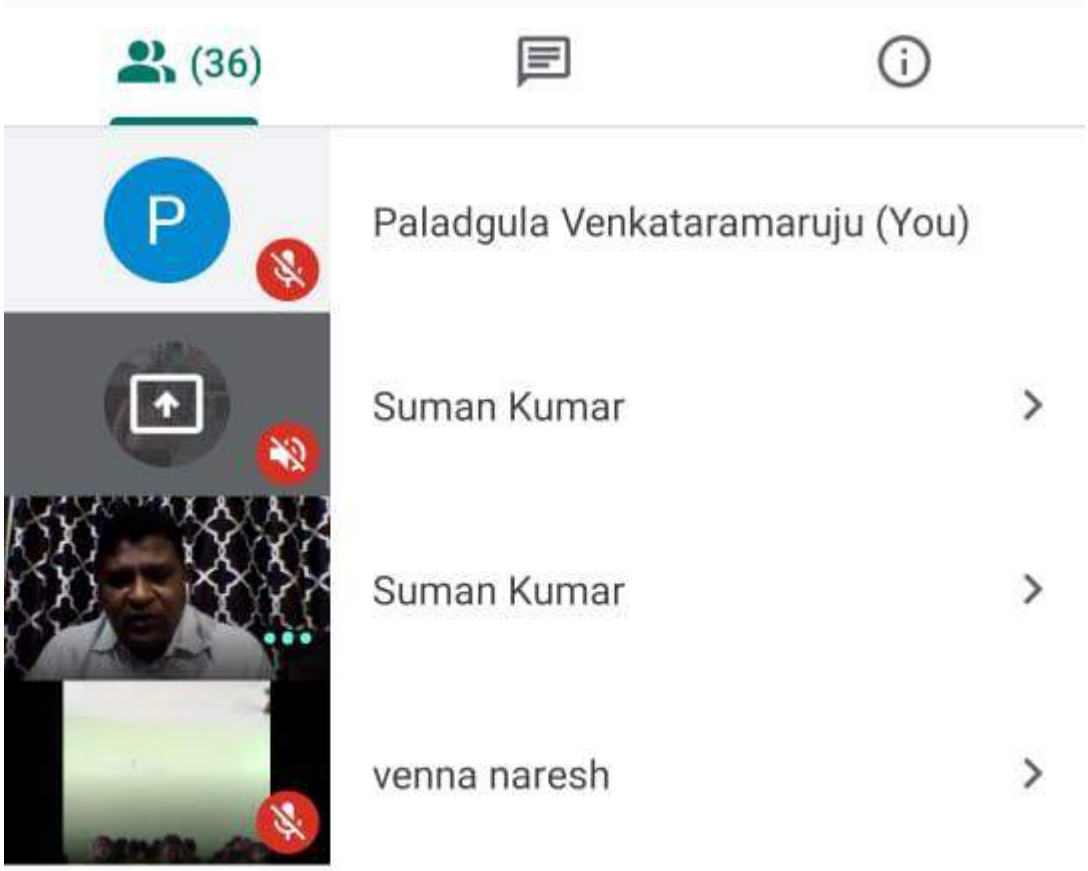
ETHNOBOTANY has played important role in the development of new drugs for many centuries and becoming increasingly important in defining strategies and actions for conservation or recuperation of residual forests.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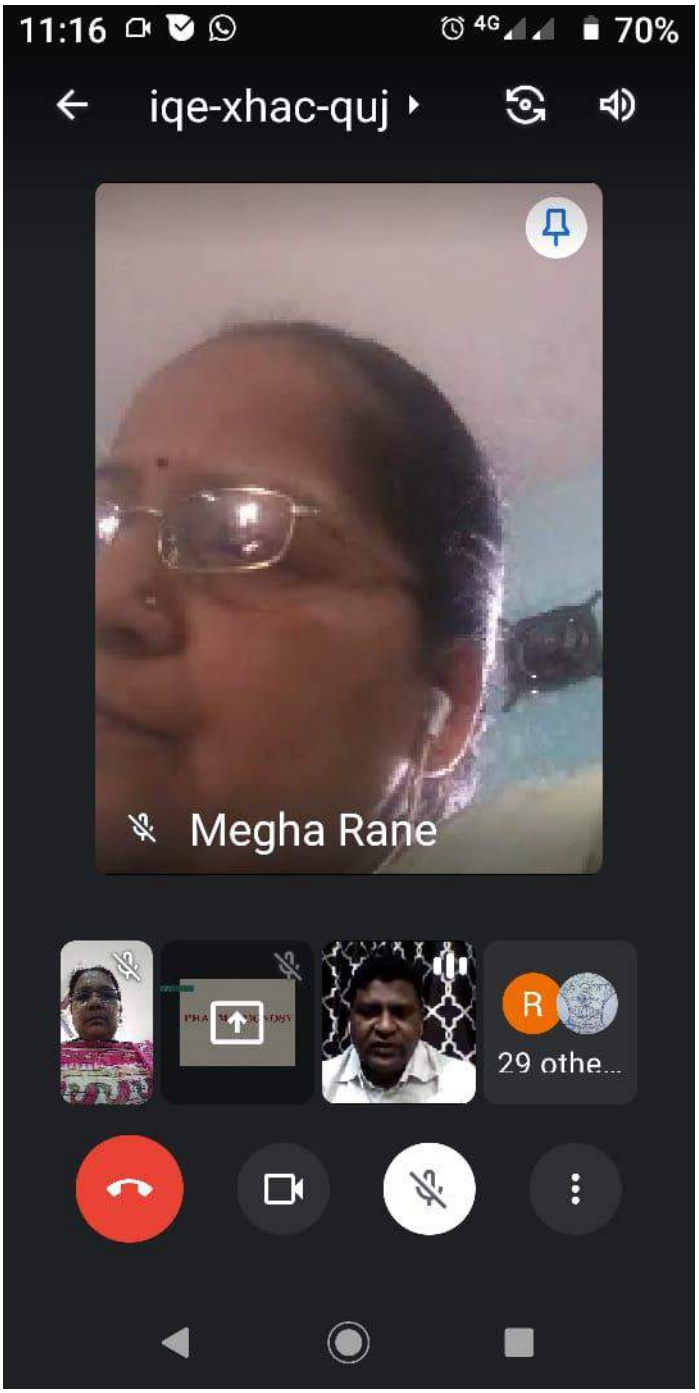
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GOVERNMENT DEGREE COLLEGE - PALONCHA
Bhadradri Kothagudem District- Telangana
NAAC Accredited, ISO Certified: 9001: 2015
(Affiliated to Kakatiya University)

Certificate of Participation

Certificate No: YRQPZQ-CE000070 Date:19-3-2021

This is to certify that Dr./Mr./Mrs. **Dr D Nagaraju,Assistant Professor of Botany** of **Government City College (A), Hyderabad** has successfully participated in National webinar on "***Ethnobotany and Pharmacognosy" : An Endangered Branch of Sciences*** on 18th March 2021, organized by Department of Botany, Government Degree College Paloncha.

(Dr. M. Poornachander Rao)
Asst. Prof. of Botany

(Dr. Y. Chinnappaiah)
Principal

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Bhadradri Kothagudem District- Telangana
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(Affiliated to Kakatiya University)

Certificate of Appriciation

This is to certified Dr.R. Suman Kumar, Post Doctoral Fellow, Department of Botany, Osmania University, Hyderabad, has delivered a lead speak on National webinar with the title "*Ethnobotany and Pharmacognosy - An Endangered branch of Sciences*" conducted by Dept. of Botany, Government Degree College Paloncha on 18-03-2021.

(Dr. M. Poornachander Rao)
Asst. Prof. of Botany
IQAC Coordinator

(P. Vijay Kumar)
Academic Coordinator

(Dr. Y. Chinnappaiah)
Principal

Certificate model issued to the participants

TITLE OF THE PROGRAM: National Webinar on "Hindi Literature