SRI VENKATESWARA COLLEGE

(UNIVERSITY OF DELHI)

EVENT REPORT

NAME OF THE EVENT: One-Day Seminar and Hands-on Workshop on Hydroponics			
DATE	**DEPARTMENT**	**COMMITTEE/SOCIETY**	**COORDINATORS NAME**
03 October 2023	Botany		Dr. Aditi Kothari Chhajer Dr. Pamil Tayal Dr. Shantanu Mandal
TIME	**VENUE**	**NUMBER OF PARTICIPANTS**	**NATURE: Outdoor/Indoor; online/offline/hybrid**
10:00 AM	Smart Brains Engineers and Technologist Pvt. Ltd., A – 25, A Block, Sector 59, Noida, Uttar Pradesh, 201301	33	Offline

BRIEF INFORMATION ABOUT THE ACTIVITY

TOPIC/SUBJECT OF THE ACTIVITY	One-Day Seminar and Hands-on Workshop on Hydroponics
OBJECTIVES	Taking students for a one-day seminar and hands-on workshop on hydroponics aims to provide participants with a comprehensive understanding of hydroponic systems, nutritional management, plant growth, and sustainable farming practices. The objective is to drive practical skills development through hands-on activities. The students will be able to understand about

	– 1. Hydroponics as sustainable growing solution 2. Importance and advantage of Hydroponics crop production 3. Future of farming to combat climatic fluctuations 4. Development of Entrepreneurship skills
METHODOLOGY	Hydroponics is a type of soilless gardening that can be done either indoor or outdoor. It's a great option for people with little or no gardening space, or who want to grow herbs, vegetables and fruits all year long at home. Hydroponic systems in cities produce vegetables that are cheaper and healthier that rural farms. Hydroponic crop production provide lot of advantages such as: • Space Efficiency • Less water usage • Higher yields • High quality produce • Effective use of nutrients • Hydroponics is stress-relieving hobby • Fewer pests and diseases • Less use of Insecticides and Herbicides • Labor and time savers • Climate control • No weeds • Grow everywhere The attendees were given a brief presentation about what Hydroponics is and how it can be a radical asset to the country and life on Earth. They were further trained to do this on their own so as to learn about its practical implications.
INVITED SPEAKERS WITH AFFILIATION DETAILS (IF ANY)	Mr. Anand Pandey,Smart Brains (HR, Head), Mr. Akshat Sharma, (Agronomist/Pathologist), Mr. Abhinav Uxa (Sales Manager)
OUTCOMES	All the attendees gained insights into the functioning of Hydroponics. They learned how to install different types of Hydroponics Systems and were able to manage the regulation of nutrients being provided to the plants in a Hydroponic System. They were also encouraged to find ways to apply it to their daily lives.

PROOFS & DOCUMENTS ATTACHED (Tick mark the proofs attached):

1 Notice & Letters ✓	2 Number of Participants & Name of Participants ✓	3 Video clip ✓	4 Photos ✓	5 Feedback Form & analysis ✓
6 News clip with details	7 Sample Copy of the Certificate	8 Posters/ Invites ✓	9 Event report Attested by Event Coordinator & IQAC Coordinator	10 Any other document

IQAC Document No: **IQAC/SVC/ 2023-2024/ Botany/Outdoor/ 01**	Criterion No: **II, III, VII**
Departmental file no: **Botany/2023-2024/ Outdoor Activity/ AKC/PT/SM**	IQAC file No: 2023-24

NAME OF TEACHER & SIGNATURE	NAME OF HEAD/ COMMITTEE INCHARGE & SIGNATURE	IQAC COORDINATOR (SEAL & SIGNATURE)
Dr. Aditi Kothari Chhajer Dr. Pamil Tayal Dr. Shantanu Mandal		

For Reference

Criterion I	Curricular Aspects (planning & Implementation)		Criterion V	Student Support & Progression
Criterion II	Teaching Learning & Evaluation		Criterion VI	Governance
Criterion III	Research, Innovations & Extension		Criterion VII	Institutional Values & Best Practices
Criterion IV	Learning Resources and Infrastructure			

Activity Report

On 3rd October 2023, the students of different semesters from B.Sc. (H.) Botany, B.Sc. (Prog.) Life Science, and B. Sc. (H.) Biological Sciences of Sri Venkateswara College had an opportunity to visit the SmartBrains Engineers and Technologist Pvt. Ltd. located in Noida, Uttar Pradesh. The Seminar on Hydroponics began at 10:00 AM. First of all, all the students and teachers were escorted to the conference room where Mr. Anand Pandey (HR) gave a brief introduction about InHydro and SmartBrains through a presentation on its history, products, services, and future plans of the company. The students learned about the diversity of the products generated by the company which included:

1. Oil, gas, and refinery setup
2. Agrotechnology
3. Hydroponic Design
4. Greenhouse design
5. Custom nutrient formulations and much more.

SmartBrains Engineers and Technology Pvt. Ltd.

Seminar Conduction by Mr. Akshat Sharma

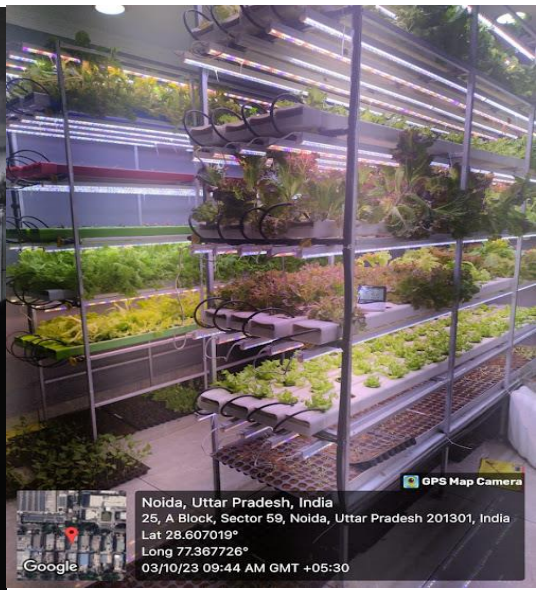
Thereafter, Mr. Akshat Sharma, an agronomist/pathologist, acknowledged the students with descriptive information about Hydroponics. The domains that he covered included:

1. Structure and Morphology of different plants
2. Hydroponics and its types
3. Nutrient management
4. Light management
5. Practical implications
6. Greenhouse setup

7. Pest and disease management

He briefed about how different types of plants depending on their structure and morphology require different techniques to develop soil-less farming in them. He also talked about various advantages of Hydroponics over normal agricultural practices which included: space efficiency, high yield, high-quality product, less water usage, effective nutrient usage, fewer pests and diseases, controlled climate, shorter roots, and most significantly, anything can literally be grown anywhere. Types of Hydroponics Systems he discussed were: - Deep Well Culture (DWC), EBB & Flow, Nutrient Film Technique (NFT), Drip, Dutch Bucket, Aeroponic, and WIC hydroponic systems, all of which basically work on the same principle of using just water and no soil to yield a better product. Refreshments like tea and snacks were provided throughout the event to keep the minds of the attendees refreshed.

Mr. Akshat Sharma conducting the seminar



Plants like Lettuce being cultivated under NFT

Farm visit:

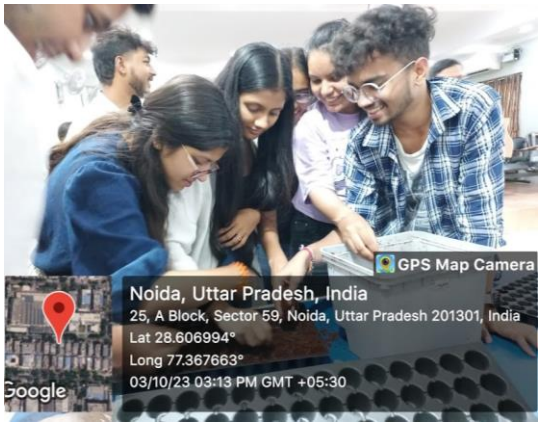
The seminar was followed by showcasing to the attendees the real-life execution of Hydroponics as the staff over there had cultivated a variety of plants including turmeric, banana, saffron, onion, potato, okra, oregano, eggplant, and many more. They were cultivated in open environments, closed environments, and polyhouses that further contained different tools including exhaust fans, nets, sheds, timers, cooling pads, temperature and humidity controllers, vents, etc. They altogether had a great use in promoting a successful and perfect Hydroponic Setup. This was then followed by attendees being escorted towards the dining hall for having a really tempting and savoury supper provided by the staff over there leaving a really marvellous aftertaste of memories built together.

Open Roof Hydroponics System

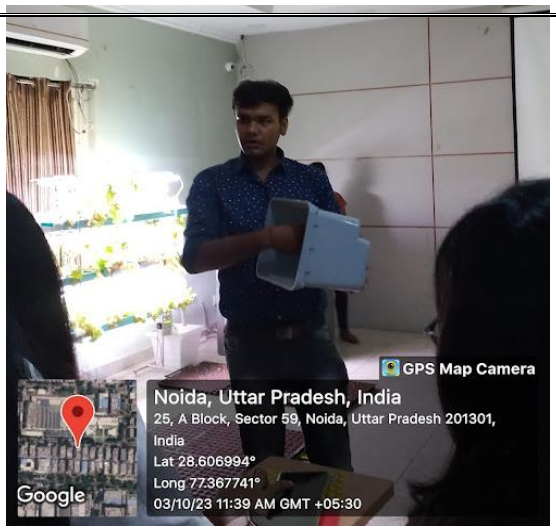
Polyhouse Hydroponic System

Hands-on Workshop on Hydroponics:

The workshop started at around 03:00 PM. After having a delicious supper and a refreshing break, attendees then moved forward to execute what they had learned. They started by sowing seeds of *Kohl/Rabi* in the coco pits using coconut fibre as an alternative for soil in order to retain proper water and environment for the seed to germinate. Then, the attendees worked on how to develop Dutch bucket systems within 10-15 minutes with ease. Dutch bucket is generally used for underground plants like potatoes.



Students sowing seeds of *Kohl/Rabi* in coco pits



Mr. Akshat Sharma instructing the attendees on how to install the Dutch Bucket System

The attendees then learned and prepared the nutrient management formulation by using TDS devices and different nutrient solutions keeping in mind their possible chemical reactions. Finally, the students learned about what are the factors that may inhibit the growth and quality of the plant being grown. At 04:30 AM, Mr. Abhinav Uxa, a sales manager, briefed the attendees about the importance of plants to the survival of life on Earth. He encouraged the attendees to contribute their efforts towards nature no matter what field they get into or what job they achieve. Their sole motive must be to give payback to nature which is the only reason for our existence. He then briefed the attendees about various profitable opportunities in this field as it is a growing domain of research and practical implications. He also talked to attendees about internships available in the field for the students to learn and apply.

Finally, a question-and-answer round was conducted where all the queries arising from the attendees were resolved by the HR and Sales Manager themselves. They even were open to bad feedback, so as to improve their presentation for upcoming learners even more. This was then followed by a group photo of attendees, Event Convenors, HR, and InHydro Staff.


Group Photos Session of all the attendees and faculties with HR Mr. Anand Pandey

Conclusion

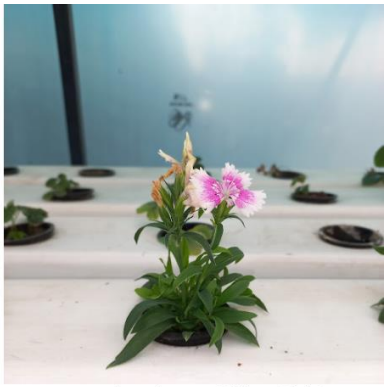
As a consequence, the whole seminar along with the workshop was a really encouraging event for the students as they learned a lot through it about how we can grow any plant anywhere without soil if provided with the required accessories. The event also enlightened the students in the view of their career options in this field as an agronomist, pathologist, sales representative, equipment manager, and agricultural equipment technician, and to earn

experience. The staff members were sweet and cooperative and solved each and every query. Therefore, the event as a whole, had a great impact on the students' lives.

Plants Observed During Site Visit

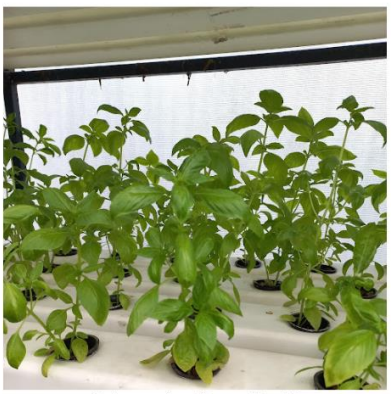
Capsicum annum (Red Chilli)

Perilla



Dianthus chinesis (China Pink)

Dianthus



Ocimum basilicum (Basil)

Fragaria (Strawberry)

Solanum melongena (Brinjal/Eggplant)

Brassica rapa subsp. chinesis

Allium sativum (Garlic)

Mentha (Mint)

Cymbopogon citratus (Lemon Grass)

Lactuca saiva (Lettuce)

Permission Letter

To

September 13, 2023

The Principal
Sri Venkateswara College
Benito Juarej Marg, Dhaula Kuan
University of Delhi
New Delhi – 110 021

Respected Sir,

This is to request your permission to organize one day workshop on hydroponics for the students of Sri Venkateswara College. This workshop will be organized by the **Department of Botany in collaboration with Integrated Hydroponics Pvt. Ltd., India**. This educational initiative aims to provide valuable learning and hands-on experience for the students of our college.

Hydroponics is an innovative and environmentally-friendly method of growing plants without soil. It can significantly enhance students' understanding of biology, chemistry, and environmental science while also fostering an appreciation for sustainable agriculture.

Our goals for this workshop include:

- Educating students about hydroponics as an alternative method of plant cultivation.
- Demonstrating the practical applications of science in everyday life.
- Promoting sustainability and responsible resource management.
- Encouraging hands-on learning and critical thinking skills.

The proposed workshop details are as follows:

Date of Event : 3 October, 2023

Time of Event: 10 am -5 pm

Venue : Integrated Hydroponics, Sector 59, Noida

A registration fee of Rs. 1000 will be charged for the participation in the workshop. It includes the cost of workshop charges and food for attendees (morning and evening tea, snacks with proper lunch in the afternoon).

Please also find attached, the approval letter and schedule for one day workshop.

Hydroponics is an important skill for both our students and faculty. It is also part of the SEC pool of courses and therefore, a training in this direction will be useful for students and faculty.

Kindly permit.

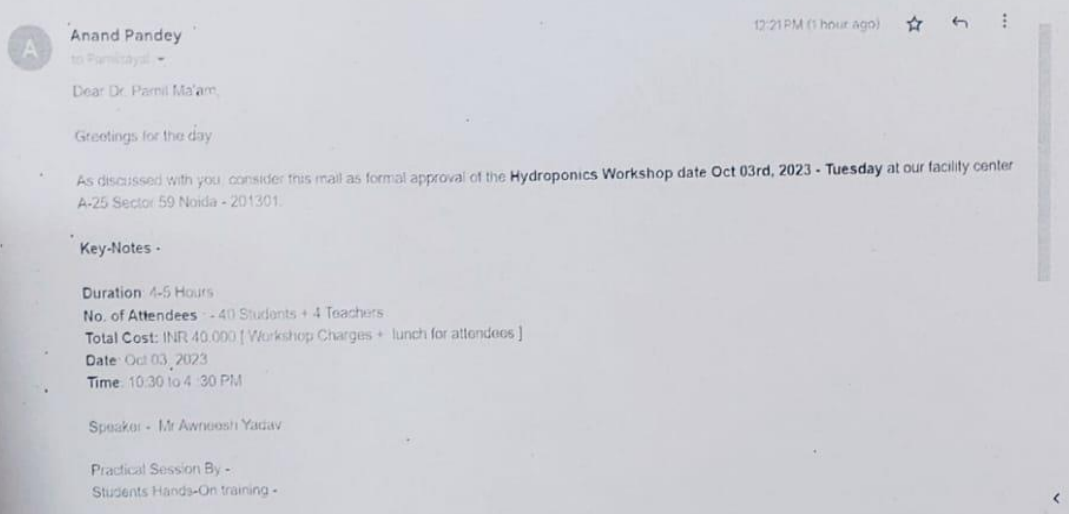
Sincere Regards,

Dr. Aditi Kothari Chhajer
Event Convenor

Dr. Pamil Tayal
Event Convenor

Dr. Shantanu Mandal
Event Convenor

Approval Letter: via E-Mail



Anand Pandey
to Pamil.tayal

12:21 PM (1 hour ago)

Dear Dr. Pamil Ma'am,

Greetings for the day

As discussed with you, consider this mail as formal approval of the **Hydroponics Workshop date Oct 03rd, 2023 - Tuesday** at our facility center A-25 Sector 59 Noida - 201301.

Key-Notes -

Duration: 4-5 Hours
No. of Attendees : - 40 Students + 4 Teachers
Total Cost: INR 40,000 [Workshop Charges + lunch for attendees]
Date: Oct 03, 2023
Time: 10:30 to 4 :30 PM

Speaker - Mr Awneesh Yadav

Practical Session By -
Students Hands-On training -

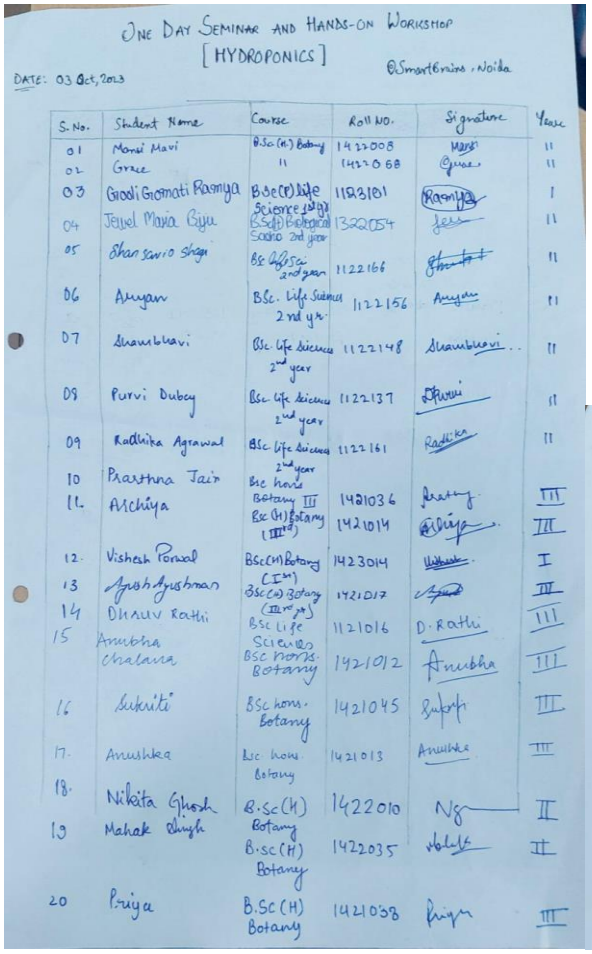
Schedule of the event:

Time	Skill Part
10:00 AM	Welcome Faculty and Students of Sri Venkateswara College Registration Kits (A notepad, Pen) will be provided
10:30 AM	Theory / Lecture by Mr. Awneesh Yadav In-Hydro One Day Workshop provides in-depth knowledge of all aspects of hydroponics, suitable for beginners, hobbyists, progressive growers, Agripreneurs, and hydroponics consultants. • Plant Science: Plant Growth Requirements • Introduction to Hydroponics, Hydroponic Systems & Crops • Hydroponics Nutrient Management
11:30 AM	Tea Break
12 Noon	Further discussion on: Hydroponics Automation Control • Agronomy, Pest diseases Management • Hydroponics Business planning • Question Answers Session
1:00 PM	Lunch Break
2:00 PM	Demonstration of NFT, Dutch Bucket system Practical Session for students
4:00 PM	Tea Break
4:30 – 5:00 PM	Certificate distribution and dispersal

Posters/Invites

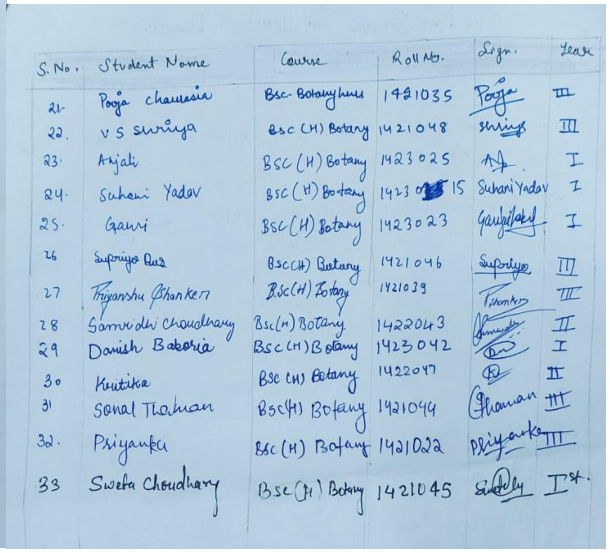
Students participation list

(All attendees are affiliated with Sri Venkateswara College)



ONE DAY SEMINAR AND HANDS-ON WORKSHOP
[HYDROPONICS]
DATE: 03 Oct, 2023 @SmartGrains, Noida

S.No.	Student Name	Course	Roll No.	Signature	Year
01	Monsi Mavi	B.Sc(H) Botany	1422008	Monsi	II
02	Grace	II	1422068	Grace	II
03	Goodi Gramati Ramya	B.Sc(P) Life Science 1st yr	1123101	Ramya	I
04	Jewel Maria Biju	B.Sc(H) Botany Sem 2nd year	1322054	Jewel	II
05	Shanawio Shiga	B.Sc Hons Sc. 2nd year	1122166	Shanawio	II
06	Anyan	B.Sc. Life Science 2nd yr.	1122156	Anyan	II
07	Shambhavi	B.Sc life science 2nd year	1122148	Shambhavi	II
08	Purvi Dubey	B.Sc. life science 2nd year	1122137	Purvi	II
09	Radhika Agrawal	B.Sc. life science 2nd year	1122161	Radhika	II
10	Prarthna Jain	B.Sc Hons Botany III	1421036	Prarthna	III
11.	Archiya	B.Sc (H) Botany (III)	1421014	Archiya	III
12.	Vishal Ponsal	B.Sc(H) Botany (I)	1423014	Vishal	I
13	Ayush Ayushman	B.Sc(H) Botany (III)	1421017	Ayush	III
14	Dhruv Rathi	B.Sc Life Sciences	1121016	D. Rathi	III
15	Anubha Chalana	B.Sc Hons. Botany	1421012	Anubha	III
16	Sukriti	B.Sc hons. Botany	1421045	Sukriti	III
17.	Anushka	B.Sc Hons Botany	1421013	Anushka	III
18.	Nikita Ghosh	B.Sc(H) Botany	1422010	Ng	II
19	Mahak Singh	B.Sc(H) Botany	1422035	Mahak	II
20	Priya	B.Sc(H) Botany	1421038	Priya	III



S. No.	Student Name	Course	Roll No.	Sign.	Year
21.	Pooja chaurasia	Bsc Botany Hons	1421035	Pooja	III
22.	V S suriya	Bsc (H) Botany	1421048	suriya	III
23.	Anjali	BSC (H) Botany	1423025	Anjali	I
24.	Sahani Yadav	BSC (H) Botany	1423015	Sahani Yadav	I
25.	Gauri	BSC (H) Botany	1423023	Gauri	I
26	Supriya Rua	BSC(H) Botany	1421046	Supriya	III
27	Priyanshu Shanker	BSC(H) Botany	1421039	Priyanshu	III
28	Samvedi Choudhary	Bsc(H) Botany	1422043	Samvedi	II
29	Danish Bakoria	BSC (H) Botany	1423042	Danish	I
30	Kritika	BSC (H) Botany	1422047	Kritika	II
31	Sonal Thakran	BSC(H) Botany	1421044	Sonal	III
32.	Priyanka	BSC (H) Botany	1421022	Priyanka	III
33	Sweta Choudhary	BSC (H) Botany	1421045	Sweta	I st.

Event Convenor(s):

Dr. Aditi Kothari Chhajer (Assistant Professor, Department of Botany)

Dr. Pamil Tayal (Assistant Professor, Department of Botany)

Dr. Shantanu Mandal (Assistant Professor, Department of Botany)

IQAC CERTIFICATE:

Tirumala Tirupati Devasthanams
శ్రీ వేంకటేశ్వర కళాశాల
Sri Venkateswara College
(University of Delhi)
NAAC Grade A+

CERTIFICATE

This is to certify that the **One day Seminar and Hands-On workshop on Hydroponics** was successfully conducted on 3rd October, 2023 from 10:00 am to 5:00 pm by Aditi Kothari Chhajer, Dr. Pamil Tayal and Dr. Shantanu Mandal from Department of Botany in the offline mode and its event report has been submitted to IQAC for records.

Event In-Charge

IQAC Coordinator

Coordinator, IQAC
Sri Venkateswara College
(University of Delhi)
Dhaula Kuan, New Delhi-110021

Principal

PRINCIPAL (Acting)
Sri Venkateswara College
(University of Delhi)
Dhaula Kuan, New Delhi-110021