#### **TEACHER'S ACTIVITY REPORT 2021-22.**

FACULTY: SCIENCE DEPARTMENT/ COMMITTEE: MATHEMATICS IQAC ACTIVITY NO.: SVC/2021-22/MATH/SS/09

NAME OF THE ACTIVITY: SCUDEM VI			
DATE	FACULTY	DEPARTMENT/COMMITTEE	COORDINATOR NAME
23 October - 14 November 2021	Science	Mathematics	Prof. Swarn Singh
TIME	VENUE	NUMBER OF PARTICIPANTS	NATURE: Outdoor/Indoor
	Online	08	Indoor
SUPPORT/ASSISTANCE:	Sri Venkateswara	College, DU	

#### BRIEF INFORMATION ABOUT THE ACTIVITY (CRITERION NO. III and VII-):

TOPIC/SUBJECT OF	SCUDEM VI (SIMIODE Challenge Using Differential Equations Modeling)		
THE ACTIVITY			
OBJECTIVES	Differential equation is a field of mathematics that helps solve real-life problems by modelling them mathematically. This competition offers students such opportunities and helps them apply practice modelling skills and apply mathematics in their daily lives.		
METHODOLOGY	Once the registrations for SCUDEM VI were done, 3 modelling problems were released and a time limit of 3 weeks was given to choose and solve any of these problems.		
OUTCOMES	The students were enthusiastically engaged with their teammates and their respective coaches. It was a great learning experience for them.		

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

Notice &Letters	Student list of participation	Activity report	Photos	Feedback form
	V	٧		

	(Links) $\checkmark$	
L I	1	
IQAC Document No: IQAC/SVC/2021-	Criterion No: III and VII	Metric No:
22/Mathematics09		
Departmental file no: SVC/2021-	IQAC file No:	
22/Mathematics09	IQAC/SVC/2021-22	

Certificate √

Any other

NAME OF	NAME OF HEAD/ COMMITTEE	IQAC COORDINATOR (SEAL & SIGNATURE)
TEACHER &	INCHARGE & SIGNATURE	
SIGNATURE		
Prof. Swarn Singh	Dr. Deepti jain	

#### For Reference

Feedback analysis News clip with details

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**

Due to the pandemic, this time the Student Competition Using Differential Equations Modelling, SCUDEM (in association with SIMIODE- Systemic Initiative for Modelling Investigations & Opportunities with Differential Equations) USA was held online. This challenge is usually taken up by students from all over the world. The students in a team of 3 engage with a team coach, with the objective of improving their modelling skills and to be able to visualize the applicability of differential equations in day-to-day life. It is an equal learning experience for coaches (faculty members) to incorporate such techniques in their classrooms.

#### **TEAMS**

The following students along with their coaches took part in the challenge:

#### 1) Dr. Neelesh Kumar (Coach and Judge)

Team No.: 1009

**Team Members:** 

1. Anant Narayanan, mkanant17@gmail.com, Sri Venkateswara College, University of Delhi

2. Rishabh Banerjee, rishabh.banerjee.108@gmail.com, Sri Venkateswara College, University of

3. Siddhi Agarwal, siddhiagarwal001@gmail.com, Sri Venkateswara College, University of Delhi

Problem on which team worked and presented:

Problem A: Hair Pulling To Line Your Nest

Problems judged: Problem B: Throw The Bike Or Throw The Race

Link for complete model problem:

https://qubeshub.org/files/MTRjZGIzZDFkMzI4NjdhNjg4ZDFjM2E4OGFiYzIyMDMxM2VkYWMzMTk3 OThiODFkYTUwNTIwNTEwNTQwMzU1MjovdmFyL3d3dy9xdWJlc2h1Yi9hcHAvc2l0ZS9mb3J1bS8xMz

AxMC8xMzAxMC9TSU1JT0RFLVZJLTIwMjEtUFJPQkxFTVMucGRm

You tube link of team presentation:

https://www.youtube.com/watch?v=vHBYdTnzGdE

Award won by the team: Outstanding award

2) Prof. Swarn Singh (Coach and Judge)

**Team No.**: 1019

**Team Members:** 

1. Anand Singh

2. Ankit Pandey

3. Abhishek Bhatia

Link for complete model problem:

https://qubeshub.org/files/MTRjZGIzZDFkMzI4NjdhNjg4ZDFjM2E4OGFiYzIyMDMxM2VkYWMzMTk3 OThiODFkYTUwNTlwNTEwNTQwMzU1MjovdmFyL3d3dy9xdWJlc2h1Yi9hcHAvc2l0ZS9mb3J1bS8xMz AxMC8xMzAxMC9TSU1JT0RFLVZJLTIwMjEtUFJPQkxFTVMucGRm

3) Mr. Sudhakar Yadav (Coach)

Team No.: 1063

**Team Members:** 

- 1. Khusmita Sharma, Department of Mathematics, Jesus and Mary College, University of Delhi
- 2. Nimish Singh, Department of statistics, Hindu College, University of Delhi

#### **Problem Name:**

Problem B: Throw The Bike Or Throw The Race

#### Link for complete model problem:

https://qubeshub.org/files/MTRjZGIzZDFkMzI4NjdhNjg4ZDFjM2E4OGFiYzIyMDMxM2VkYWMzMTk3 OThiODFkYTUwNTIwNTEwNTQwMzU1MjovdmFyL3d3dy9xdWJlc2h1Yi9hcHAvc2l0ZS9mb3J1bS8xMz AxMC8xMzAxMC9TSU1JT0RFLVZJLTIwMjEtUFJPQkxFTVMucGRm

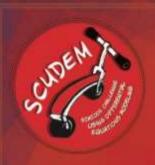
#### You tube link of the team presentation:

https://www.youtube.com/watch?v=aabEPN4ARJI

The students were asked to upload their presentation on the selected problem on YouTube.







# SIMIODE

A SYSTEMIC INITIATIVE FOR MODELING INVESTIGATIONS & OPPORTUNITIES WITH DIFFERENTIAL EQUATIONS

SCUDEM VI 2021 - 14 November 2021

Siddhi Agarwal, Anant Narayanan, and Rishabh Banerjee Coach Neelesh Kumar

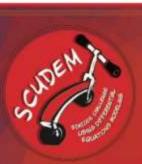
Sri Venkateswara College, University of Delhi, New Delhi, INDIA

are hereby granted the Outstanding Award for their submission of

### Problem A Nest Fur

as determined by faculty and peer judges and given by the Director, SIMIODE.





# SIMIODE

A SYSTEMIC INITIATIVE FOR MODELING INVESTIGATIONS
& OPPORTUNITIES WITH DIFFERENTIAL EQUATIONS

SCUDEM VI 2021 - 14 November 2021

Kushmita Sharma, Jesus and Mary College, New Delhi, INDIA Nimish Singh, Hindu College, Delhi University, New Delhi, INDIA Ogunranti Sikiru Abiola, Obafemi Awolowo University, Ieife, NIGERIA Coach Sudhakar Yadav, Sri Venkateswara College, New Delhi, INDIA

are hereby granted the Successful Award for their submission of

## Problem B Bike Throw

as determined by faculty and peer judges and given by the Director, SIMIODE.





1961 - 2021 Tirumala Tirupati Devasthanams Sri Venkateswara College (University of Delhi)

## **CERTIFICATE**

This is to certify that the SCUDEM VI (SIMIODE Challenge Using Differential Equations Modeling) was successfully conducted on 23 October - 14 November 2021 by the Department of Mathematics in the Online mode and its event report has been submitted to IQAC for records.

IQAC Coordinator

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

PRINCIPAL Sri Venkateswara College Dhaula Kuan, New Delhi-110021