



AY: 2022-2023
2023-ODD

Sri Srinivasa Educational & Charitable Trust
SAPTHAGIRI COLLEGE OF ENGINEERING
(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)
#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560 057
An ISO 9001:2015 and 14001:2015 Certified Institution
Department of Biotechnology

*Type of event/activity	Alumini Talk
Name/Title of the Activity/Event	"Programming languages for jobs and Future" Ms. Pooja Singh Ad operations and analyst executive, Genisys Group , Hoodi Village, Whitefield, Thigalarapalya, Krishnarajapura Bangalore-560048
Date of Organization	5 th January 2023
Venue (with address)	Department of Biotechnology, Sapthagiri College of Engineering, Bangalore 57
Organized by	Dr. Soumya C - Coordinator
Objectives of the event/activity	Major objective of organizing this seminar was in order to remain relevant in the job market it is important for professionals to learn new coding languages. The most essential skill to learn on today's scenario
Participants (Please attach list of participants, if it is organized/conducted in the dept.))	70 participants (V & III sem)
Mention organized /participated/attended	Organized

Event Description:

The objective of organizing this seminar was Major objective of organizing this seminar was in order to remain relevant in the job market it is important for professionals to learn new coding languages. The most essential skill to learn on today's scenario. The talk was delivered by proud alumni student Ms. Pooja Singh, Ad operations and analyst executive, from **Genisys Group**, Bangalore-560048.

The outcome of the seminar was that students were able to learn career path with coded language. Total of 70 participants registered and participated in the Seminar. The session was started by welcome speech from

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14/5, Chikkasandra, Hesaraghatta Main Road
Bangalore - 560 057




Head of the Department
Dept. of Bio -Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
Hesaraghatta Main Road
Bangalore -57



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AY: 2022-2023
2023-ODD

Dr. Veena S More, HOD BT and The entire technical session was moderated by Dr Soumya C. Biotechnology, Sapthagiri College of Engineering, Bangalore 57



Note:

- (i) After every event, please take feedback (online/offline).
(ii) At the end map PO's (with 3/2/1):

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
3	2	2	2	3				2	2	2	3

***Type of activity:**

Workshop/seminar/conference/hackathon/hobby project/mini project/ Invited Talk/Guest Lecture/
Skill enhancement program/Cultural activity/competitions etc.,

Date of Submission: 20/01/2023


Co-Ordinator Signature


Signature of the HOD
Head of the Department
Dept. of Bio -Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
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Principal
Sapthagiri College of Engineering
Chikkasandra



AY: 2022-2023
2022- EVEN

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Department of Biotechnology (May-2023)

*Type of event/activity	Hands on training workshop
Name/Title of the Activity/Event	"CRISPR/CAS Gene Editing: potential Tool in Therapy and Diagnostics"
Date of Organization	15 th May to 19 th May2023
Venue (with address)	Department of Biotechnology (SCE)
Organized by	Co-ordinator: Prof. Ramya D L and Dr. Chaitra B S
Objectives of the event/activity	The main objective of ethics in research publications are: 1. Day 1: - Topic1-Fundamentals of CRISPR/Cas9; Topic 2- Edit out HIV 2. Day 2: - discussion and troubleshooting mini project 1 3. Day 3: - Design PCR primers to validate gene editing (mini project 2). 4. Day 4: - CRISPR based diagnoses (cas12 and cas 13). 5. Day 5: - Applications of CRISPR in modern medicine.
Participants (Please attach list of participants, if it is organized/conducted in the dept.))	53 participants
Mention organized /participated/attended	Organized

Event Description:

The Department of Biotechnology organized a Hands-on Workshop on "CRISPR/CAS Gene Editing: potential Tool in Therapy and Diagnostics" under the banner of The Institution of Engineers (India) Student chapter on 15th May to 19th Nov 2023 from 1:00 pm to 4:00 pm in association with Shristi Forum, BT, SCE.

Chaitra

[Signature]
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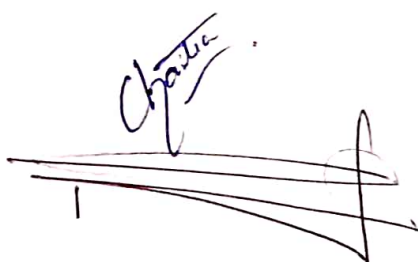
The session was open for the faculties and students of Biotechnology Department. The resource persons for the Hands-on workshop session are Dr. Gokul Kesavan, Co-founder & Chief Scientific Officer VOWELS.

The objective of the Workshop is to make understand and provide ethical knowledge regarding:

1. Before introducing to the genome editing, some of the basic abbreviations with the definitions were given as a quiz in order to have some idea, i) CRISPR -Clustered Regularly Interspaced Short Palindromic Repeats, ii) Cas CRISPR-associated systems (enzyme), iii) cr RNA -CRISPR RNA.
2. Introduction to gene editing, CRISPR and background Genome editing is the generation of permanent changes in the DNA sequences of a cell or an organism. Various enzymes/methods like mega-nucleases, ZFN, and TALEN are used for genome editing. Recently, CRISPR has proven to be an efficient method for creating site directed genome editing.
3. Work flow for a CRISPR experiment was given in order to edit the given gene and confirming by suing different methods and characterization.
4. In order to design the sgRNA, there are multiple online resources like CHOP-CHOP for designing the target site (<https://chopchop.cbu.uib.no/>). Even Live demonstration and projects are also assigned to train on using the application.
5. Validation and successful editing and downstream characterization Introducing Cas9 and a gRNA into cells (possibly along with a donor template) will result in a mixed population of cells. Following the introduction of a Cas9-mediated double-strand break (DSB) in mammalian cells, cellular machinery repairs the DSB by non-homologous end joining (NHEJ) or homology-directed repair (HDR).

The Hands-on Workshop had an interactive session where students and faculties of Biotech department, SCE have participated, learnt and benefited with information related to the role of ethics in research publications. About 50+ participants participated in the session. It was an enlightening and fruitful event.

The session was started by welcome speech by Dr. Veena S More, HOD, BT, SCE and followed by introduction by Prof. Ramya D L, Program Co-Ordinator, formal vote of thanks was delivered by Dr Chaitra B S, Program Co-Ordinator.



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Brochure:



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Phone: 080-28 372900/1/2 Fax: 080-28 372797

DEPARTMENT OF BIOTECHNOLOGY
The Indian Institute of Engineers (IEI) student chapter
Organizing
Skill Development Program
for
BE Biotechnology students

HANDS ON TRAINING WORKSHOP

"CRISPR/CAS Gene Editing: Potential tool in Therapy and Diagnostics"

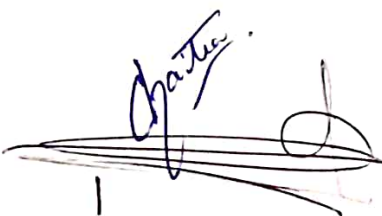
CHIEF PATRONS
Sri. Dayananda G
Chairman, SCE
Sri. G D Manoj
Managing Director,
SCE
Dr. Ramakrishna H
Principal
Dr. Veena S More
HOD
Dr. Chaitra B S
IEI Convener

PROGRAM CO-ORDINATORS
Dr. Chaitra B S
&
Prof. Ramva D L

Resource person:
Dr. Gokul Kesavan
Co-founder & Chief Scientific Officer
VASLR

DURATION:
5 days
15th to 19th May 2023

Every participant will receive certificate at the end of workshop



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Images of the Event:

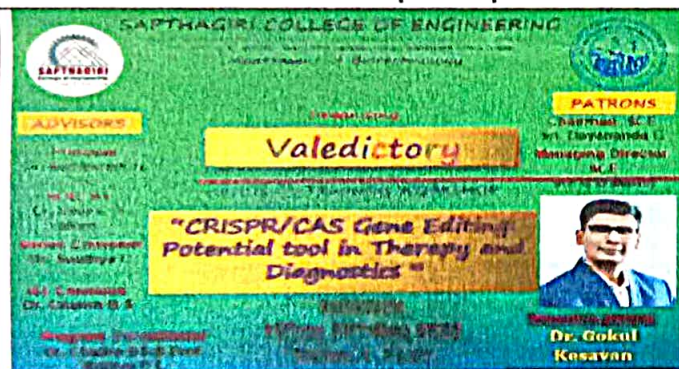




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Active participation of students during the work shop



Chaitanya

[Signature]
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Handing over certificates to students and Valedictory Event of the Workshop

At the end map PO's (with 3/2/1)

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
2	2	3	3	-	3	-	-	2	3	-	2

Date of Submission: 23/05/2023

Co-ordinator Signature

Dr. Chaitra B S

Prof. Ramya D




Signature of the HOD, BT
Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
Hesaraghatta Main Road
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Attendance sheet of HANDS ON TRAINING WORKSHOP
Titled: "CRISPR/CAS Gene Editing: Potential tool in Therapy and Diagnostics"

Sl No.	USN No.	Student Name	15/05/2023	16/05/2023	17/05/2023	18/05/2023	19/05/2023
1.	1SG20BT001	Aastha Roy	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
2.	1SG20BT002	Abdulsamad A Hazratbhai	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
3.	1SG20BT003	Aishwarya BI	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
4.	1SG20BT004	Alice Jennifer	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
5.	1SG20BT005	Amina Farheen	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
6.	1SG20BT006	Amoghavarsha G	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
7.	1SG20BT007	Ananya B S	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
8.	1SG20BT008	Annapareddy Trinayanireddy	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
9.	1SG20BT009	Asfia Sultana	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
10.	1SG20BT010	Bhoomika B V	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
11.	1SG20BT011	Chaitra Shree A	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
12.	1SG20BT012	Chetan Kagineelli	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
13.	1SG20BT013	Chethana R	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
14.	1SG20BT015	Deekshitha M	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
15.	1SG20BT016	Deepika Prakash	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
16.	1SG20BT017	Deepthi P M	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
17.	1SG20BT018	Dhanush Hallikar S	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla
18.	1SG20BT019	Dharani G	Abdulla	Abdulla	Abdulla	Abdulla	Abdulla

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Hands on training workshop- May 2023

19.	1SG20BT020	Divya K N	Prayath	Prayath	Prayath	Prayath
20.	1SG20BT021	G L Nikhil Kumar Reddy	Prayath	Prayath	Prayath	Prayath
21.	1SG20BT022	Ganavi N	Prayath	Prayath	Prayath	Prayath
22.	1SG20BT023	Gayathri S	Prayath	Prayath	Prayath	Prayath
23.	1SG20BT024	Harshitha Reddy G	Prayath	Prayath	Prayath	Prayath
24.	1SG20BT025	J Joylynn Grace	Prayath	Prayath	Prayath	Prayath
25.	1SG20BT027	K Narahari	Prayath	Prayath	Prayath	Prayath
26.	1SG20BT031	Namita Krishnakumar	Prayath	Prayath	Prayath	Prayath
27.	1SG20BT033	Nesara M	Prayath	Prayath	Prayath	Prayath
28.	1SG20BT034	Niranjan M	Prayath	Prayath	Prayath	Prayath
29.	1SG20BT035	Nischitha K S	Prayath	Prayath	Prayath	Prayath
30.	1SG20BT036	Nitheesh S	Prayath	Prayath	Prayath	Prayath
31.	1SG20BT037	P Swathi	Prayath	Prayath	Prayath	Prayath
32.	1SG20BT039	Prathiksha Gs	Prayath	Prayath	Prayath	Prayath
33.	1SG20BT040	Pravalika Kv	Prayath	Prayath	Prayath	Prayath
34.	1SG20BT041	Priyanka V	Prayath	Prayath	Prayath	Prayath
35.	1SG20BT042	Raksha K	Prayath	Prayath	Prayath	Prayath
36.	1SG20BT043	Raksha S	Prayath	Prayath	Prayath	Prayath
37.	1SG20BT044	Rakshith R	Prayath	Prayath	Prayath	Prayath
38.	1SG20BT045	Ranjitha C M	Prayath	Prayath	Prayath	Prayath
39.	1SG20BT046	Rumana Banu	Prayath	Prayath	Prayath	Prayath
40.	1SG20BT047	S N Megha Mourya Nandan	Prayath	Prayath	Prayath	Prayath

Chaitanya

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Hands on training workshop- May 2023

41.	1SG20BT029	Kishchi Bhavani K Singh	Kb	Kb	Kb	Kb
42.	1SG20BT049	Sanjana S S	Sanjana	Sanjana	Sanjana	Sanjana
43.	1SG20BT050	Savitha M	Savitha	Savitha	Savitha	Savitha
44.	1SG20BT051	Sharon Raj	Sharon	Sharon	Sharon	Sharon
45.	1SG20BT052	Smrithi B	Smrithi	Smrithi	Smrithi	Smrithi
46.	1SG20BT053	Sudiksha K Kumar	Sudiksha	Sudiksha	Sudiksha	Sudiksha
47.	1SG20BT054	Sushma S	Sushma	Sushma	Sushma	Sushma
48.	1SG20BT055	Swathi Bharadwaj R	Swathi	Swathi	Swathi	Swathi
49.	1SG20BT056	Tanu Kumar C	Tanu	Tanu	Tanu	Tanu
50.	1SG20BT057	Upputuri Jahnvi	Jahnvi	Jahnvi	Jahnvi	Jahnvi
51.	1SG20BT059	Varshitha N R	Varshitha	Varshitha	Varshitha	Varshitha
52.	1SG20BT060	Varun S	Varun	Varun	Varun	Varun
53.	1SG20BT061	Vibha Samarth	Vibha	Vibha	Vibha	Vibha

Chaitanya

Program Coordinator

N. Srinivas

HOD BT Department
Dept. of Bio-Technology
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Bengaluru - 560 057

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FEEDBACK FROM STUDENT'S

Timestamp	Name of the student	USN	What is your overall assessment of the event?	Did the workshop achieve the program objectives?	Which topics or aspects of the workshop did you find most interesting or useful?	How was the Speaker's knowledge on the topic?
5/19/2023 1:48:53	Annapareddy Trinayani Reddy	1SG20BT008	Good	Yes	Applications on CRISPR	5
5/19/2023 1:49:46	J Joylynn grace	1SG20BT025	Very good	Yes	Application part of crispr editing	5
5/19/2023 1:56:11	Aastha Roy	1SG20BT001	Informative	Yes	Practicals	5
5/19/2023 3:54:01	Varun S	1SG20BT060	Very Informative	Yes	Target and modify "typos" in the three-billion-letter sequence of the human genome in an effort to treat genetic disease and other STD'S.	5
5/19/2023 4:45:28	Dhanushhallikar S	1SG20BT018	We have learnt a future use of crisprcas 9 which able to cure many diseases	Yes	Editing part	5
5/31/2023 23:38:33	Aishwarya BL	1SG20BT003	Good	Yes	Gene editing	5
5/31/2023 23:40:02	ANNAPAREDDY TRINAYANI REDDY	1SG20BT008	Good	Yes	The Application part	5
5/31/2023 23:40:06	Prathiksha GS	1SG20BT039	Good	Yes	Useful	5
5/31/2023 23:40:14	J joylynn grace	1SG20BT025	Helpful	Yes	Everything related to crispr	5
5/31/2023 23:40:37	Alice Jennifer	1SG20BT004	Very useful and informative	Yes	Gene editing assignments	5
5/31/2023 23:40:43	Priyanka V	1SG20BT041	Very informative	Yes	Gene editing assignments	5
5/31/2023 23:41:34	Niranjan M	1SG20BT034	It was good and nice.	Yes	Practical part while doing crisprcas9	4
5/31/2023 23:42:14	Sharon Raj	1SG20BT051	Very Informative	Yes	Practical work	5


 Sapthagiri
 Professor of Engineering
 JSS Academy of Higher Education and Research
 Mysore

FEEDBACK FROM STUDENTS

5/31/2023 23:44:33	NamitaKrishnakumar	1SG20BT031	Very informative	Yes	Ensembl	5
5/31/2023 23:45:16	SAVITHA M	1SG20BT050	Very informative	Yes	Ensemble Org	5
5/31/2023 23:46:33	Gayathri S	1SG20BT023	Crisprcas 9gene editing	Yes	Editing HIV virus	5
5/31/2023 23:47:03	KhushiBhavani K Singh	1SG20BT029	Useful in the future	Yes	Practical	5
5/31/2023 23:47:40	Harshitha Reddy G	1SG20BT024	Useful in the future	Yes	Partical	5
5/31/2023 23:57:00	Pravalika KV	1SG20BT040	Know the crispr gene editing	Yes	Zebra fish gene editing using crispr	5
6/1/2023 0:14:14	Tanukumar c	1SG20BT056	Good	Yes	Geneediting hands on experiment	5
6/2/2023 3:01:47	Vibhasamartha	1SG20BT061	It was good	Yes	Depth of the topic	5
6/2/2023 3:02:58	Upputurijahnavi	1SG20BT057	Good very helpful	Yes	Knocking the genome	5
6/2/2023 3:03:00	Bhoomika B V	1SG20BT010	It was good	Yes	Knocking the gene	5
5/31/2023 23:38:33	Rakshiith	1SG20BT045	Good	Yes	Gene editing	5
5/31/2023 23:40:02	Chetana	1SG20BT004	Very good	Yes	The Application part	5
5/31/2023 23:40:06	Abdulsamad	1SG20BT002	Informative	Yes	Useful	5
5/31/2023 23:40:14	Amina	1SG20BT005	Very Informative	Yes	Everything related to crispr	5
5/31/2023 23:40:37	Asfia Sultana	1SG20BT009	We have learnt a future use of crisprcas 9 which able to cure many diseases	Yes	Gene editing assignments	5
5/31/2023 23:40:43	Sudikshakumar	1SG20BT053	Good	Yes	Gene editing assignments	5

FEEDBACK FROM STUDENTS

5/31/2023 23.41.34	SwathiBharadwaj	1SG20BT055	Good	Yes	Practical part while doing crisprcas9	5
5/31/2023 23.42.14	K Narahari	1SG20BT027	Good	Yes	Practical work	5
5/31/2023 23.44.33	Kruthi	1SG20BT029	Good	Yes	Ensembl	5
5/31/2023 23.45.16	Pratiksha	1SG20BT039	Very good	Yes	Gene editing	5
5/31/2023 23.42.14	Deekshitha	1SG20BT025	Good	Yes	Practical work	5
5/31/2023 23.44.33	Chetankagneeli	1SG20BT004	Good	Yes	Ensembl	5
5/31/2023 23.45.16	SAVITHA M	1SG20BT041	Very good	Yes	Gene editing	5
5/31/2023 23.42.14	Smrithi B	1SG20BT034	Good	Yes	Practical work	5
5/31/2023 23.44.33	S N Meghamourya	1SG20BT051	good	yes	Ensembl	5


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