#### ABOUT THE INSTITUTION

Sri Venkateswara College of Engineering (SVCE is one of the premier technical institutions in Tamilnadu. The College is situated on the Chennai – Bengaluru National Highway (NH4) about 37 km southwest of Chennai. The college offers 12 UG programs and 7 PG programs. SVCE is an ISO 9001:2015 certified institution and Accredited by "NAAC" with A+ grade.

#### DEPARTMENT OF BIOTECHNOLOGY

SVCE started the Department of Biotechnology in 2005. The department offers B.Tech and M.Tech Biotechnology programs approved by AICTE. It is also approved as a Research Center in Biotechnology for MS (by Research) and Ph.D. programs by Anna University, Chennai. The Department has well-established laboratory facilities, has received Research Grants (2.85 Crores) and also several grants for organizing Short Term Training courses, Workshops, Faculty Development Programs from various funding agencies such as DBT, SERB, ICMR, CSIR and EDII.

#### VISION OF THE DEPARTMENT

To produce higher caliber Biotechnologists to attain new heights in bioinformatics and bioprocess technology as per industrial needs and to provide leaders in the field of Biotechnology.

#### MISSION OF THE DEPARTMENT

- 1.To progress the department to attain center of excellence in bioinformatics and bioprocess technologies by providing best Undergraduate, Postgraduate, Doctoral programs and R&D activities within a decade.
- 2.To develop special skilled training programs for graduates to meet the personality characters stipulated by the industries within a period of five years.
- 3.To build potential biotechnologists capable of dealing with new challenges and socio-ethical implications.

#### **WORKSHOP OBJECTIVE:**

The field of cell culture (Microbial and Animal) has advanced greatly over the years. Cell culture is a versatile tool in the investigation of basic scientific and translation research questions. The basic premise of this workshop is to provide hands-on experience in Microbial and Animal cell culture handling. The workshop is designed to enrich the knowledge on the latest trends and applications of cell culture techniques.

#### **WORKSHOP HIGHLIGHTS**

Sessions by IITM Professors & Scholars Hands on sessions - Workshop

#### **EXPECTED OUTCOMES**

Participants will

- Have Hands-on Proficiency in handling microbial and animal cell cultures.
- Gain knowledge on design of experiments using cell cultures

**VENUE:** Department of Biotechnology, SVCE

#### TRANSPORT AND ACCOMODATION

- ➤ Accommodation may be provided during workshop in the campus on prior notice, the participant will bear the charges.
- > Transport facility can be availed by the in-station participants.

Max. No. of participants: 30

REGISTRATIONLINK: https://forms.gle/2zEZfp2tKCHqqSmi8

REGISTRATION FEE: Rs. 1000/-

Registration Fee Includes Reg. Kit, Working Lunch and Certificate

Last date for registration: 15th October, 2023

#### **MAILING ADDRESS**

Dr. V. Sumitha

Professor

Department of Biotechnology

Sri Venkateswara College of Engineering (Autonomous)

Sriperumbudur Tk - 602 117

Tel: 044 - 27152000 / 27163783 Extn: 576/584

Mobile: +91-9841932565 Email:svcebioengg @gmail.com

#### PAYMENT DETAILS

Account Number: 467302331

Account Name: PRINCIPAL, SRI VENKATESWARA

COLLEGE OF ENGINEERING Bank Name: Indian Bank Branch Name: Sriperumbudur IFSC Code: IDIB000S080 MICR No: 600019112

### DEPARTMENT OF BIOTECHNOLOGY SRI VENKATESWARA COLLEGE OF ENGINEERING



Sriperumbudur, Tamil Nadu - 602117 An Autonomous Institution, Affiliated to Anna University, Chennai, Accredited by NAAC with A+ Grade, NBA)





Organizes a

#### HANDS-ON WORKSHOP

on

#### "Bioengineering Life: Exploring Microbial and Animal Cell Culture"

during

18-20<sup>th</sup> October, 2023

CONVENERS
Prof. M. Sivanandham
Prof. E. Nakkeeran

ORGANIZING SECRETARY Prof. V. Sumitha

COORDINATORS Dr. M. Naresh Kumar Mr. S. Naga Vignesh













www.svce.ac.in



Sriperumbudur, Tamil Nadu - 602117 An Autonomous Institution, Affiliated to Anna University, Chennai, (Accredited by NBA & NAAC with A+ Grade)

#### **Department of Biotechnology**

HANDS-ON WORKSHOP

on

# "Bioengineering Life: Exploring Microbial and Animal Cell Culture" 18-20th October, 2023

#### **Program Schedule**

	104.0 . 1 . 0000
Day 1	18 <sup>th</sup> October, 2023
Time	Event
8.30- 9.15 a.m	Registration
9.15-9.17. a.m	Prayer Song
9.17-9.20 a.m	Welcome address
	Ву
	Dr. E. Nakkeeran, Professor & Head
	Department of Biotechnology, SVCE
9.20-9.22 a.m	"Workshop Overview"
	Ву
	Dr. V. Sumitha, Prof/BIO
9.23-9.25 a.m	Workshop Inauguration and Release of Manual
	By the chief guest
	Dr. G. K. Suraish Kumar
	Professor/Department of Biotechnology
	IIT Madras
9.25-9.30 a.m	Introducing the Chief guest
	By
	Dr. M. Naresh Kumar, AP/BIO
9.30- 10.30 a.m	Inaugural lecture on
	"Reactive Species in Cancer Treatment and
	Management"
10.30-10.45 a.m	Tea Break
10.45 a.m-12.30	Session- I
p.m	Preparation of Recombinant Culture for
T .	Mitochondrial Metabolic Study
	By Mr. Gautam Mohapatra

3.05-3.10 p.m	National Anthem
3.00-3.05 p.m	Vote of Thanks
2.45-3.00 p.m	Certificate Distribution
	"Lignin is the New Cellulose"
2.05-2.45 p.m	Valedictory talk on
	Mr. S. Naga Vignesh, AP/BIO
	By
	Department of Biotechnology, IIT Madras
	Assistant Professor
	Dr. Krithika Ravi
2.00-2.05 p.m	Introducing the Chief guest
1.00 1.10 p.m	Valedictory Ceremony
1.30-1.45 p.m	Feedback session
1.15 -1.30 p.m	Assessment Test
12.30-1.15 p.m	Lunch break
p.m	Department Tour
10.30-10.45 a.m 10.45 a.m-12.30	Tea Break Department Tour
8.45-10.30 a.m	Follow-up sessions
Day 3	20 <sup>th</sup> October, 2023
<b>D</b> 0	2011 0 4 1 2022
3.15-4.15 p.m	Discussion session
3.00-3.15 p.m	Tea Break
2.00.0.15	By Ms. Sambhavi Pattnaik
	Revival of Frozen Cells and Cryopreservation
1.50-3.15 p.m	Session- VI
	By Ms. Sambhavi Pattnaik
	Subculturing and Transfection of Cell Line
12.15 -1.45 p.m	Session- V
p.m	
11.30 a.m-12.15	Lunch break
	By Mr. Sai Saranga Das
	Understanding the Design of Photobioreactor
10.15-11.30 a.m	Session- IV
10.00-10.15 a.m	Tea Break
	By Mr. Sai Saranga Das
	Understanding Photosynthesis Using Photobioreactor
8.45-10.00 a.m	Session- III
Day 2	19 <sup>th</sup> October, 2023
	104.0 . 1 . 0000
3.15-4.15 p.m	Discussion session
3.00-3.15 p.m	Tea Break
	By Mr. Gautam Mohapatra
	CAS9 DNA Editing Tools
•	Designing the Genetic Studies Using CRISPR-
1.15-3.00 p.m	Session- II
12.30 -1.15 p.m	Lunch break







An Autonomous Institution Affiliated to Anna University, Chennai, Accredited by NAAC with A+ Grade

## **Department of Biotechnology**



Solicit your esteemed presence for the Inaugural ceremony



#### HANDS ON WORKSHOP

on

"Bioengineering Life: Exploring Microbial and Animal Cell Culture" 18-20th October, 2023

Chief Guest



Prof. G. K. Suraish Kumar Deptartment of Biotechnology IIT Madras, Chennai

Keynote lecture: "Reactive Species in Cancer Treatment and Management"

ALL ARE CORDIALLY INVITED !!!

18<sup>th</sup> October 2023 @ 09:00 AM Venue: Biotech Conference Hall









An Autonomous Institution Affiliated to Anna University, Chennai, Accredited by NAAC with A+ Grade

## **Department of Biotechnology**



Solicit your esteemed presence for the Valedictory ceremony



#### HANDS ON WORKSHOP

on

"Bioengineering Life: Exploring Microbial and Animal Cell Culture" 18-20th October, 2023

Chief Guest



Dr. Krithika Ravi
Assistant Professor
Deptartment of Biotechnology
IIT Madras, Chennai

Keynote lecture: "Lignin in the New Cellulose"

ALL ARE CORDIALLY INVITED !!!

20th October 2023 @ 02:00 PM Venue: Biotech Conference Hall



#### **Department of Biotechnology**



#### **REPORT**

#### HANDS-ON WORKSHOP

## "BIOENGINEERING LIFE" EXPLORING MICROBIAL AND ANIMAL CELL CULTURE"

#### **CONVENERS**

Prof. M. Sivanandham

Prof. E. Nakkeeran

#### **ORGANIZING SECRETARY**

Prof. V. Sumitha

#### **COORDINATORS**

Dr. M. Naresh Kumar

Mr. S. Naga Vignesh



#### **Department of Biotechnology**



The Department of Biotechnology, Sri Venkateswara College of Engineering, Sriperumbudur organized a "Hands on Workshop" on "Bioengineering Life: Exploring Microbial and Animal Cell Culture" in association with Indian Institute of Technology, Madras from 18<sup>th</sup> October, 2023 to 20<sup>th</sup> October, 2023. Prof. V. Sumitha, Mr. S. Naga Vignesh and Dr. M. Naresh Kumar, organized/coordinated the workshop.

The basic objective of this workshop is to provide hands-on experience in Microbial and Animal cell culture handling. As an outcome, the participants are expected to have Hands-on Proficiency in handling microbial and animal cell cultures and Gain knowledge on the design of experiments using cell cultures.

About 40 participants registered for the workshop. The workshop started at 9.00 a.m with a formal welcome address by Prof. E. Nakkeeran, Head of the Department. The HOD also welcomed the chief guest Dr. G. K. Suraish Kumar, Professor/Department of Biotechnology, IIT Madras and the research scholars Mr. Gautam Mohapatra, Mr. Sai Saranga Das and Ms. Sambhavi Pattnaik from IIT Madras, with a bouquet. Following this, the organizing secretary Dr. V. Sumitha, gave a short "Workshop overview". The chief guest inaugurated the workshop and released the workshop Manual. Dr. M. Naresh Kumar, the coordinator of the workshop, introduced the Chief guest Prof. G. K. Suraish Kumar. Followed by which, the chief guest delivered a lecture on "Reactive Species in Cancer Treatment and Management". His lecture was both enlightening and inspiring, his expertise and insights left a profound impact on our participants. The guest speaker interacted with the participants and addressed all the questions raised by the faculty and students. The HOD felicitated the chief guest with a memento.

After the tea break, the hands on sessions started at 11.00 a.m. Mr. Gautam Mohapatra handled the sessions "Preparation of Recombinant Culture for Mitochondrial Metabolic Study" and "Designing the Genetic Studies Using CRISPR-CAS9 DNA Editing Tools". Mr. Sai Saranga Das handled the sessions "Understanding Photosynthesis Using Photobioreactor" and "Understanding the Design of Photobioreactor". Ms. Sambhavi Pattnaik handled the sessions "Revival of Frozen Cells and Cryopreservation" and "Subculturing and Transfection of Cell Line". The participants were divided into three batches and were allowed to attend all the sessions on rotation basis in Day 1 and Day 2.

On Day 3, a department tour was organized to exhibit the department facilities to the participants. An assessment was conducted and a feedback was collected from the participants. The valedictory ceremony started by 2.00 p.m. Mr. S. Naga Vignesh the coordinator of the workshop, introduced the chief guest Dr. Krithika Ravi, Assistant Professor, Department of Biotechnology, IIT Madras. She gave a valedictory talk on the topic "Lignin is the New Cellulose". Her talk was so interesting and motivating. The HOD presented a memento the chief guest and the research scholars. The certificates were distributed to the participants.

Through hands-on experimental learning, attendees acquired practical skills in microbial and animal cell culture methods, including aseptic techniques, media preparation, and maintenance of cell lines. The workshop facilitated a collaborative learning environment, encouraging participants to connect, share ideas, and exchange knowledge with peers, guest lecturers, and experts in the field. Participants also gained insights into the real-world applications of

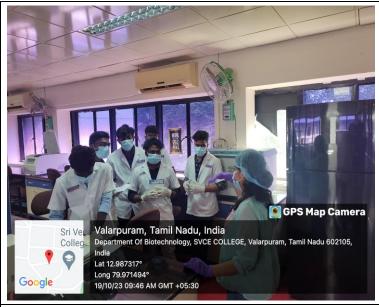
#### **Department of Biotechnology**



bioengineered cells in various industries and research fields, equipping them with the knowledge needed to contribute to cutting-edge advancements in bioengineering.

Dr. V. Sumitha, gave the vote of thanks, and the workshop came to an end with the National anthem.









Organizing Secretary

HOD