



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

**School of Bio and Chemical Engineering
Department of Bioinformatics**

Date: June 23, 2018

STUDENTS CIRCULAR

Ref No: SIST / Bioinfo / Odd - sem / VAC / June 23, 2018

Dear Students,

This is to inform you that the following courses are being offered to students under the value-added certificate courses category for this academic year. Students belonging to the I year to the III of B. Sc and I and II year of M. Sc are welcome to enrol in these courses. The duration of every course is 30 hours. On completion of the course, you will obtain a certificate of accomplishment.

S. No	Name of the course	Faculty Coordinator
1	Computational Chemistry - A workshop (September 03 – October 10, 2018)	Dr. Jemmy Christy
2	Microarray Data Analysis - Hands on (November 05 – December 08th 2018)	Dr. Swetha Sunkar
3	NGS Data Analytics – Workshop (January 21 to February 16th, 2019)	Dr. D. Alex Anand.

Venue

Biocomputing Lab, Department of Bioinformatics.

The last date for enrollment is - Closes 07 days before the start of each course.

HOD

Dr.H.Jemmy christy

Copy to

School of Bio and Engineering classrooms

Heads of School of Bio and Engineering classrooms

HEAD OF THE DEPARTMENT
DEPARTMENT OF BIOINFORMATICS
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai
Chennai – 600 149



SATHYABAMA

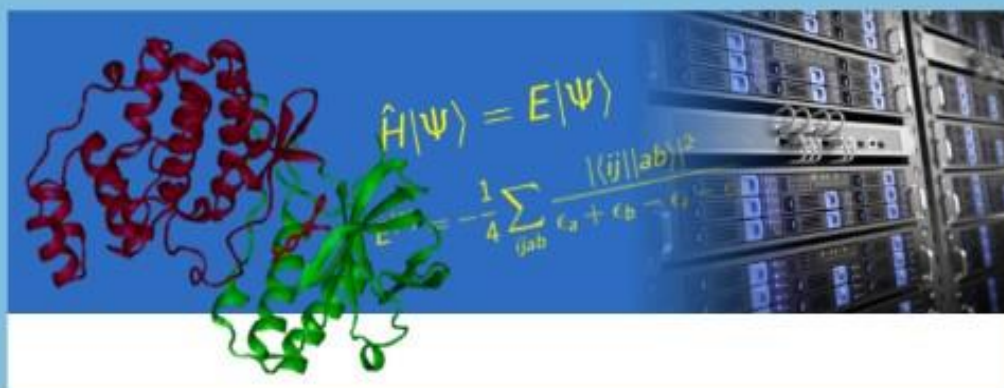
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Department of Bioinformatics &
The Centre for Molecular Data Science and Systems Biology

Presents

COMPUTATIONAL CHEMISTRY - A WORKSHOP



September 03 – October 10, 2018

FACULTY CO - ORDINATOR - DR. JEMMY CHRISTY



COL Dr. JEPPIAAR
Founder Chancellor



Dr. Mariazeena Johnson
Chancellor



Dr. Marie Johnson
President

PATRONS

Dr. T. SASIPRABA, M.E., Ph.D VICE - CHANCELLOR, SIST
Dr. S. S. RAO, M.B.A., Ph.D REGISTRAR, SIST | Dr. E. LOGANATHANMUGAM, M.E., Ph.D., PRO VICE CHANCELLOR, SIST

Organizing Members - Dr. Jemmy Christy | Dr. Swetha Sunkar | Dr. D. Alex Anand,
Department of Bioinformatics, SIST

Facilitated by - The Students & Faculty, Department of Bioinformatics & CMDSSB

Computational Chemistry - A workshop (September 03 – October 10, 2018)

Day	Date	Topics Covered	Faculty-In-Charge
1	03-09-2018	Chemistry databases - Introduction	Dr. Alex Anand
2	04-09-2018	Chemistry databases -Hand on	Dr. Alex Anand
3	05-09-2018	Chemistry databases –Hands on	Dr. Alex Anand
4	06-09-2018	Chemsketch – theory	Dr. Alex Anand
5	07-09-2018	Chemsketch - Hand on	Dr. Alex Anand
6	08-09-2018	Visualization – Molview	Dr. Swetha Sunkar
7	10-09-2018	Visualization - Rasmol	Dr. Swetha Sunkar
8	11-09-2018	Visualization -Pymol	Dr. Swetha Sunkar
9	12-09-2022	Visualization- Hands-on	Dr. Swetha Sunkar
10	13-09-2022	Visualization- Hands-on	Dr. Swetha Sunkar
11	14-09-2022	Open Babel – Hands on	Dr. Alex Anand
12	15-09-2022	Mcule –hands on	Dr. Alex Anand
13	17-09-2022	SWISSADME - theroy	Dr. Swetha Sunkar
14	18-09-2022	SWISSADME – Hands on	Dr. Swetha Sunkar
15	19-09-2022	SWISSADME – Hands on	Dr. Swetha Sunkar
16	20-09-2022	Toxicity prediction - theory	Dr. Alex Anand
17	21-09-2022	Toxicity prediction – hands on	Dr. Alex Anand
18	22-09-2022	SWISSMODEL - theory	Dr. Alex Anand
19	24-09-2022	SWISSMODEL-Hands on	Dr. Alex Anand
20	25-09-2022	SWISSMODEL-Hands on	Dr. Alex Anand
21	26-09-2022	Model validation – theory	Dr. Alex Anand
22	27-09-2022	Model validation – Hands on	Dr. Alex Anand
23	28-09-2022	Energy minimization - theory	Dr. Jemmy Christy
24	29-09-2022	Energy minimization – Hands on	Dr. Jemmy Christy
25	01-10-2022	Discovery studio - Theory	Dr. Jemmy Christy
26	03-02-2018	Discovery studio – Hands on	Dr. Jemmy Christy
27	06-02-2018	Discovery studio – Hands on	Dr. Jemmy Christy
28	08-02-2018	Discovery studio - Hands on	Dr. Jemmy Christy
29	09-02-2018	Gromacs - theory	Dr. Jemmy Christy
30	10-02-2018	Gromacs – Hands on	Dr. Jemmy Christy

Computational Chemistry - A workshop (September 03 – October 10, 2018)

S. No	Name
1.	S.Mahalakshmi
2.	Amreesh Karthikeyan
3.	Poovendiran. P
4.	Sreesuganya K
5.	Yuganthini. R
6.	Anaswara T S
7.	S.P.Vaishali
8.	Elayaraja Dhandapani
9.	R.Poorvaja
10.	Karthick Raja Arulprakasam
11.	K.Gokilapriyavarthini
12.	Keerthana Sree S
13.	Saranya
14.	M. Fathima
15.	Haripriya J
16.	Dhivyaroopa R
17.	Mohanadevi. S
18.	Fathima. M
19.	Vinesh R
20.	Manjithra. M
21.	Malik Basha S
22.	Mary Soumiya M
23.	Monika
24.	S R Bharathkumaar
25.	Akshay Kumar
26.	Maulikkumar Thesiya
27.	Shivanjali
28.	S Sinthuja
29.	Priyankaa.B
30.	Mr. Ojasvi Dutta
31.	M.Kaviya Priya
32.	Selvi S
33.	S.Saivarshini
34.	Sathya

35.	DESAM NEEHARIKA
36.	BASHYAM PRANEETHA
37.	ANANYA BAJPAI
38.	JAMALPUR NAVEEN KUMAR
39.	JAMALPUR NAVEEN KUMAR
40.	SURYANI GUHA
41.	SWARALIPi MITRA
42.	REFANA SHAHUL
43.	JASHEELA VIMALI I

Computational Chemistry - A workshop (September 03 – October 05, 2018)

Report

This course is designed to give students an overview of microarray technologies and their applications in the biomedical field, leading to design and analysis of microarray experiments. The course will cover the latest techniques and theories and is organized around a combination of lecture and practical sessions.

At present, Bioinformatics is a fast-growing field both at the level of Academia and Industry. At Sathyabama, we are keen to impart the expertise in genome-informatics through workshops and training programs. Sathyabama runs a series of bioinformatics workshops to train researchers in developing their own data analysis methods, and enabling them choose the right tools in their specific research projects. Each workshop includes both lectures and hands-on sessions.

Objectives

- To create an awareness with respect to the basic tools and techniques used in bioinformatics at industrial level
- To provide complete hands-on-training in the basic tools and techniques
- To inspire and motivate all life sciences to apply these techniques in their research programmes



SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

Department of Bioinformatics &
The Centre for Molecular Data Science and Systems Biology

Computational Chemistry - A workshop

CERTIFICATE OF PARTICIPATION

THIS IS TO CERTIFY THAT

YUGANTHINI. R

has participated in the Hands on Training workshop on "Computational Chemistry - A workshop" that was held from the September 03 - October 10, 2018

DR. JEMMY CHRISTY

HEAD, DEPARTMENT OF BIOINFORMATICS

DR. T. SASIPRABA

VICE CHANCELLOR



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**School of Bio and Chemical Engineering
Department of Bioinformatics**

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2	Microarray Data Analysis - Hands on (November 05 – December 08th 2018)	Dr. Swetha Sunkar
3	NGS Data Analytics – Workshop (January 21 to February 16th, 2019)	Dr. D. Alex Anand.

Venue

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Dr.H.Jemmy christy

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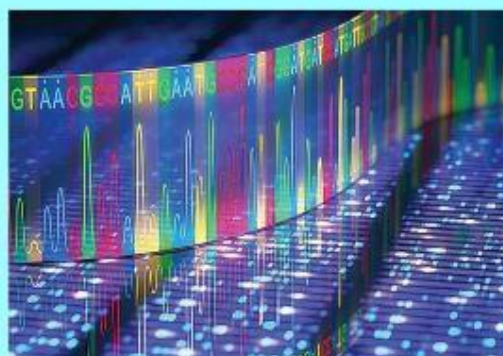
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**Department of Bioinformatics &
The Centre for Molecular Data Science and Systems Biology**

Presents

MICROARRAY DATA ANALYSIS - 2018



November 05 – December 08th 2018

FACULTY CO - ORDINATOR - DR. SWETHA SUNKAR.



COL. Dr. JEPPIAAR
Founder Chancellor



Dr. Mariozeena Johnson
Chancellor



Dr. Marie Johnson
President

PATRONS

Dr. T. SASIPRABA, M.E., Ph.D VICE - CHANCELLOR, SIST
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Organizing Members - Dr. Jemmy Christy | Dr. Swetha Sunkar | Dr. D. Alex Anand,
Department of Bioinformatics, SIST

Facilitated by - The Students & Faculty, Department of Bioinformatics & CMDSSB

Microarray Data Analysis - Hands on (November 05 – December 08th 2018)

Days	Date	Topics Covered	Faculty-In-Charge
1-3	21-01-2021 to 23-01-2021	Introduction to Unix/Linux & running workflows	Dr. Alex Anand
4-7	24-01-2021 to 25-01-2021	Introduction to NGS Technologies	Dr. Swetha Sunkar
8-11	28-01-2021 to 30-01-2021	NGS data pre-processing and QC	Dr. Jemmy Christy
12-15	31-01-2021 to 02-02-2021	Alignment to reference sequences	Dr. Jemmy Christy
16-19	04-02-2021 to 06-02-2021	Variant calling and annotation	Dr. Alex Anand
20-23	07-02-2021 to 09-02-2021	ChIPSeq	Dr. Swetha Sunkar
24-26	11-02-2021 to 13-02-2021	RNASeq	Dr. Jemmy Christy
27-30	14-02-2021 to 16-02-2021	Genome assembly	Dr. Alex Anand

Microarray Data Analysis - Hands on (November 05 – December 08th 2018)

S. No	Name
1.	S.MAHALAKSHMI
2.	AMREESH KARTHIKEYAN
3.	POOVENDIRAN. P
4.	SREESUGANYA K
5.	YUGANTHINI. R
6.	ANASWARA T S
7.	S.P.VAISHALI
8.	ELAYARAJA DHANDAPANI
9.	R.POORVAJA
10.	KARTHICK RAJA ARULPRAKASAM
11.	K.GOKILAPRIYAVARTHINI
12.	KEERTHANA SREE S

13.	SARANYA
14.	M. FATHIMA
15.	HARIPRIYA J
16.	DHIVYAROOPA R
17.	MOHANADEVI. S
18.	FATHIMA. M
19.	VINESH R
20.	MANJITHRA. M
21.	MALIK BASHA S
22.	MARY SOUMIYA M
23.	MONIKA
24.	S R BHARATHKUMAAR
25.	AKSHAY KUMAR
26.	MAULIKKUMAR THESIYA
27.	SHIVANJALI
28.	S SINTHUJA
29.	PRIYANKAA.B
30.	MR. OJASVI DUTTA
31.	M.KAVIYA PRIYA
32.	SELVI S
33.	S.SAIVARSHINI
34.	SATHYA
35.	DESAM NEEHARIKA
36.	BASHYAM PRANEETHA
37.	ANANYA BAJPAI
38.	JAMALPUR NAVEEN KUMAR
39.	JAMALPUR NAVEEN KUMAR
40.	SURYANI GUHA
41.	SWARALIPi MITRA
42.	REFANA SHAHUL
43.	JAISHEELA VIMALI I

Microarray Data Analysis - Hands on – Report

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Department of Bioinformatics &
The Centre for Molecular Data Science and Systems Biology

Microarray Data Analysis - A workshop

CERTIFICATE OF PARTICIPATION

THIS IS TO CERTIFY THAT

PRIYANKAA B

has participated in the Hands on Training workshop on "Microarray Data Analysis - Hands on" that was held from the 05th November - December 08th 2018).

DR. JEMMY CHRISTY

HEAD, DEPARTMENT OF BIOINFORMATICS

DR. T. SASIPRABA

VICE CHANCELLOR



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Dr. H. Jemmy Christy

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**Department of Bioinformatics &
The Centre for Molecular Data Science and Systems Biology**

Presents

NGS DATA ANALYTICS WORKSHOP - 2019



January 21 to February 16th, 2019

FACULTY CO - ORDINATOR - DR. D. ALEX ANAND.



COL Dr. JEPPIAAR
Founder Chancellor



Dr. Mariazeena Johnson
Chancellor



Dr. Marie Johnson
President



Mr. J. Arul Selvan
Vice President



**Ms. Maria Bernadette
Tamilarasi Johnson**
Vice President



**Ms. Maria Catherine
Jayapriya**
Vice President

PATRONS

Dr. T. Sasi Praba, M.E., Ph.D. Vice-Chancellor, SIST
Dr. S. S. Rao, M.B.A., Ph.D. Registrar, SIST | Dr. E. Loganathanmugam, M.E., Ph.D., Pro Vice-Chancellor, SIST

Organizing Members - Dr. Jemmy Christy | Dr. Swetha Sunkar | Dr. D. Alex Anand,
Department of Bioinformatics, SIST

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**NGS Data Analytics – Workshop
January 21 to February 16th, 2019**

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20-23	07-02-2021 to 09-02-2021	ChIPSeq	Dr. Swetha Sunkar
24-26	11-02-2021 to 13-02-2021	RNASeq	Dr. Jemmy Christy
27-30	14-02-2021 to 16-02-2021	Genome assembly	Dr. Alex Anand

NGS Data Analytics – Workshop January 21 to February 16th, 2019

S. No	Name
1.	S.mahalakshmi
2.	Amreesh karthikeyan
3.	Poovendiran. P
4.	Sreesuganya k
5.	Yuganthini. R
6.	Anaswara t s
7.	S.p.vaishali
8.	Elayaraja dhandapani
9.	R.poorvaja
10.	Karthick raja arulprakasam
11.	K.gokilapriyavarthini
12.	Keerthana sree s

13.	Saranya
14.	M. Fathima
15.	Haripriya j
16.	Dhivyaroopa r
17.	Mohanadevi. S
18.	Fathima. M
19.	Vinesh r
20.	Manjithra. M
21.	Malik basha s
22.	Mary soumiya m
23.	Monika
24.	S r bharathkumaar
25.	Akshay kumar
26.	Maulikkumar thesiya
27.	Shivanjali
28.	S sinthuja
29.	Priyankaa.b
30.	Mr. Ojasvi dutta
31.	M.kaviya priya
32.	Selvi s
33.	S.saivarshini
34.	Sathya
35.	Desam neeharika
36.	Bashyam praneetha
37.	Ananya bajpai
38.	Jamalpur naveen kumar
39.	Jamalpur naveen kumar
40.	Suryani guha
41.	Swaralipi mitra
42.	Refana shahul
43.	Jaisheela vimali i

Next Generation Sequencing Workshop – Report

Next-generation sequencing (NGS) technologies are now a crucial component of practically all life sciences research and diagnostics. NGS data are often processed by qualified bioinformaticians because to their volume and, more importantly, complexity. This is also a serious issue for experienced professionals in life sciences who have never studied NGS because it is too new and must suddenly adapt to completely new tools, workflows, and scientific terminology, not to analyse NGS data themselves (after all, that is why we have bioinformaticians), but to ask the right questions and understand the results.

Our session will teach you the fundamentals of NGS data processing. Its purpose is to teach students how to perform the fundamental processes of NGS data analysis, such as raw data manipulation, quality control, and the elimination of low-quality sequences, sequence adapters, artefacts, or other contamination. The end result should be complete mastery of the process, with the output being a set of high-quality data that can be used for further analysis.

You will become acquainted with numerous NGS data formats, learn about the specific benefits and drawbacks of sequencing technologies and how to cope with them, and gain an understanding of the history of individual techniques used to change NGS data. You will not become a bioinformaticist after this three-day training, but you will be well on your way to being **a qualified partner for bioinformaticists on your team.**



SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

Department of Bioinformatics &

The Centre for Molecular Data Science and Systems Biology

Next Generation Sequencing Workshop - 2019

CERTIFICATE OF PARTICIPATION

THIS IS TO CERTIFY THAT

FATHIMA. M

has participated in the Hands on Training workshop on "Next Generation Sequencing" that was held from the January 21 to February 16th, 2019

A handwritten signature in black ink, likely belonging to Dr. V. Ramesh Kumar.

DR. V. RAMESH KUMAR
CONVENER

A handwritten signature in black ink, likely belonging to Dr. Jemmy Christy.

DR. JEMMY CHRISTY
HEAD, DEPARTMENT OF BIOINFORMATICS

A handwritten signature in green ink, likely belonging to Dr. T. Sasipraba.

DR. T. SASIPRABA
VICE CHANCELLOR