

Solicit your esteemed presence for the *Inaugural function* of  
**SPONSORED BY**



**Online National Workshop on**  
**"Genomics data science in precision medicine design"**



IN ASSOCIATION WITH  
ALTEM TECHNOLOGIES, BENGALURU



**Chief Guest**  
**Dr. M. Sivanandham**  
Professor & Secretary (SVEHT)  
Sri Venkateswara College of Engineering  
Sriperumbudur Tk - 602117

*Will preside over and deliver the Inaugural Address*

*in the presence of*  
**Dr. Dhivya Shanmugarajan**  
Application Scientist, BIOVIA DS  
Altem Technologies, Bengaluru

**ALL ARE WELCOME**

Google Meet Link : <https://meet.google.com/ofu-wxyd-bjb>  
Date : 05<sup>th</sup> February 2021 (Friday)  
Time : 9.30AM

Pennalur, Sriperumbudur Tk - 602117

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Solicit your esteemed presence for the *Valedictory function* of

Sponsored by



**Online National Workshop on**  
**“Genomics data science in precision medicine design”**



IN ASSOCIATION WITH  
ALTEM TECHNOLOGIES, BENGALURU



**Chief Guest**  
**Dr. Manikandan Narayanan**  
Associate Professor, Department of CSE  
IITM, Chennai

*Will preside over and deliver the Valedictory Address*

*in the presence of*

**Prof. S. Ganesh Vaidyanathan Principal**

**ALL ARE WELCOME**

Google Meet Link : <https://meet.google.com/nvu-yyks-tse>  
Date : 06<sup>th</sup> February 2021 (Saturday)  
Time : 03.05P.M

Pennalur, Sriperumbudur Tk - 602117

[svce.ac.in](http://svce.ac.in)





## COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

Human Resource Development Group  
CSIR Complex, Library Avenue, Pusa, New Delhi 110 012  
Tel : 011 2584 1037  
Email: [symposia.travel@gmail.com](mailto:symposia.travel@gmail.com) , web <http://csirhrdg.res.in>

**Hemant Kulkarni**  
*Senior Principal Scientist*

Ref No. SYM/10627/20-HRD  
February 19, 2021

**Dr P K Praveen Kumar**  
Associate Professor  
Dept. of Biotechnology  
Sri Venkateswara College  
of Engineering, pennalur, Sriperumbudur-602 117 Tamilnadu

**SUBJECT: National Workshop on Genomics Data Science in Precision Medicine Design during Feb 05-06,2021 at Sri Venkateswara College of Engineering, Sriperumbudu**

Dear Dr Praveen Kumar

With reference to your application on the above subject, we are happy to inform you that Director General, CSIR has been pleased to sanction a grant of **Rs.25000/- (Rupees Twenty Five Thousand only)** subject to the following conditions:

1. The grant received from CSIR should be duly acknowledged by email along with a certificate that the grant would be specifically utilized for the purpose for which it has been sanctioned.
2. The grant may be reimbursed within four months from the date of Conference/Seminar/Workshop etc. is over by filling-in the Grant-in-Aid Bill Form in duplicate duly signed and rubber stamped by the concerned officials, indicating clearly the designation of the official along with Audited Statement of Expenditure for release of grant. Current Proforma for Grant-in-aid bill, Audited Statement of Expenditure and NEFT are available on our website <http://csirhrdg.res.in/Home/Index/1/InPage/53/14>. If any Utilization Certificates of Previous Grant for symposia (as per Col.No. 15 of the Application Performa) is not submitted till date, please attach copies of Utilization Certificates also. Any claim received beyond 4 months will be entertained only in exceptional cases subject to submission of reasons for delay, duly forwarded through Head of the Organization. In no case, the claim will be entertained after 6 months. All the pages of above documents should be self attested by the organizer.
3. Invitation cards should be sent to the Director General, CSIR and Head, HRDG. CSIR may nominate three scientists for the above event and registration fee should not be charged from them. In case of nomination, the Head, HRDG or the undersigned would issue a letter with a copy to the nominee(s).
4. Softcopy (preferably in CD/ DVD in PDF format) of the full paper proceedings of above event should be sent to the undersigned.
5. An overall activity report by the Convener / Organizing Secretary should be made available by email to us with regard to outcome of the gathering, the recommendations and plan of action for future. The names, addresses & email IDs of the participants / delegates should also be sent immediately after the event by email.

Yours sincerely,

(Hemant Kulkarni)

Copy to: Audit (EMR) HRDG



#### REGISTRATION FEE

No registration fee is charged for the Participants. Participants are requested to send their details through e-mail on or before 21<sup>st</sup> January, 2021. Confirmation will be sent to the selected participants through e-mail. Filled in registration form should be sent to the below mentioned address on or before 29<sup>th</sup> January, 2021. Participants who attend the entire session on both the days only will receive the certificate. The number of participants is limited to 40 and the selection will be based on first-cum-first serve.

#### BONAFIDE CERTIFICATE

(For Students only)

Mr./Ms. \_\_\_\_\_  
is permitted to attend "National workshop on Genomics data science in Precision Medicine Design" during 05<sup>th</sup> and 06<sup>th</sup> February, 2021 at Sri Venkateswara College of Engineering, Sriperumbudur Tk. - 602 117, Tamilnadu.

Date: \_\_\_\_\_ Signature  
(Designation & Seal)

#### MAILING ADDRESS

**Dr. P.K.Praveen Kumar**  
Associate Professor  
Department of Biotechnology  
Sri Venkateswara College of Engineering  
(Autonomous)  
Pennalur, Sriperumbudur Tk - 602 117  
Tel: 044 - 27152000 / 27163783 Extn: 587  
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E-mail: gds@svce.ac.in

#### Online National workshop on "Genomics data science in Precision Medicine Design"

05<sup>th</sup> & 06<sup>th</sup> February, 2021

#### REGISTRATION FORM

1. Name \_\_\_\_\_
2. Designation \_\_\_\_\_
3. Age \_\_\_\_\_
4. Participant Category : Student / Faculty / Industry
5. Branch & Year: \_\_\_\_\_
6. Name of the Institution with postal address: \_\_\_\_\_
7. E-mail ID: \_\_\_\_\_
8. Mobile number: \_\_\_\_\_
9. Specialization: \_\_\_\_\_
10. Reason to attend the workshop: \_\_\_\_\_

#### Declaration

I agree to abide by the rules and regulations of the workshop.

Place: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

(Copy of this form can be used for registration)

Registration form link:

<https://forms.gle/M7EqGYs9vovAHa2y5>

#### Online National workshop on "Genomics data science in Precision Medicine Design"

05<sup>th</sup> & 06<sup>th</sup> February, 2021

Organized by



Department of Biotechnology

Sponsored by



In association with



CONVENERS

Prof. M. Sivanandham  
Dr. V. Sumitha

ORGANIZING SECRETARY

Dr. P.K.Praveen Kumar

COORDINATORS

Mr. J.Hariharan  
Mr. S.Naga vignesh

Pennalur, Sriperumbudur Tk - 602 117,  
Tamilnadu, India



#### ABOUT THE INSTITUTION

Sri Venkateswara College of Engineering (Autonomous) (SVCE), one of the premier technical institutions in Tamilnadu, was established in 1985. The College is situated on the Chennai-Bengaluru National Highway (NH4) about 37 km south-west of Chennai. The college offers 11 UG programmes and 8 PG programmes. The National Board of Accreditation accredited many of the eligible programmes and SVCE is an ISO 9001:2008 certified institution.

#### DEPARTMENT OF BIOTECHNOLOGY

In order to support the growth in Biotechnology, SVCE started the Department of Biotechnology in 2005 under the guidance of our Chairman Dr.A.C.Muthiah, a well known Industrialist who understands the strength of Industrial Biotechnology. The department offers B.Tech and M.Tech Biotechnology programmes under Anna University, Chennai, approved by AICTE. It is also approved as a Research Center in Biotechnology for MS (by Research) and Ph.D. programmes by Anna University, Chennai. The Department has well established laboratory facilities namely Bioprocess and downstream processing, Immunology, Instrumental Methods of Analysis, Genetic Engineering, Animal house, Research Lab, Bioinformatics Lab and Computational Systems Biotechnology Lab.

The Department received Research Grants (1.2 Crore) from various funding agencies such as SERB, ICMR, AICTE, CTS and also several grants (22 lakh) including wave bioreactor for drug and vaccine design from AICTE MODROBS for organizing Short Term Training courses, workshops, faculty development programmes from various funding agencies such as DBT, ICMR, CSIR and EDII.

#### PROGRAMME OBJECTIVE

Personalized, precision, P4, or stratified medicine is understood as a medical approach in which patients are stratified based on their disease subtype, risk, prognosis, or treatment response using specialized diagnostic tests. Personalized medicine is deeply connected to and dependent on Genomic data science, specifically machine learning (often named Artificial Intelligence). Genomic Data Science is the field that applies statistics and data science to the genome.

This workshop covers the concepts and tools to understand, analyze, and interpret data from genome experiments. It comprises the application of most common tools used in genomic data science including how to use the command line, along with a variety of software implementation tools like R programming, mining genomics and molecular docking in Autodock.

This workshop is designed to train skills molecular biology, or genetics, for scientists in these fields seeking to gain familiarity in data science and statistical tools to better interact with the data in their everyday work. Hands-on-experience is provided in the Genomic Big Data Science Specialization, R programming with R studio. Hence, this workshop is also aimed at imparting theoretical knowledge and practical training in drug design, discovery and safety. Thus, this workshop will provide a platform for the students, faculty and industrialists to share their knowledge and recent advancements in the fascinating field of Precision Medicine.

#### Proposed Invited Speakers from Industries & Institutions

1. Prof.M.Sivanandham, Secretary, SVEHT, Chennai
2. Dr. Dhivyaa Shanmugarajan, App.Scientist, Biovia DS, Altem Technologies, Bengaluru.
3. Dr. Manikandan Narayanan, Asso. Prof, Department of CSE, IITM, Chennai.

#### COURSE CONTENT & SCHEDULE

The workshop consists of lecture sessions and hands on training sessions provided in the Genomic Big Data Science, R programming with R studio, Differential expression of genes with SNPs, Microbiome and IEDB databases, Immunoinformatics tools and molecular docking with Autodock.

#### VENUE

Sri Venkateswara College of Engineering (SVCE), Sriperumbudur Tk.- 602 117, Tamilnadu, India.

#### DATES TO REMEMBER

Last date for e- registration : 30.01.2021  
Intimation of selection : 01.02.2021

**Online National Workshop on “Genomics data science in Precision Medicine Design”**

**05<sup>th</sup> and 06<sup>th</sup> February, 2021**

**Department of Biotechnology**

**Sri Venkateswara College of Engineering (Autonomous),  
Sriperumbudur.**

**Program Schedule**

*Common Google Meet Link for Day1: <https://meet.google.com/ofu-wxyd-bjb>*

*Google Meet Link of training sessions for Day1: <https://meet.google.com/tbq-tioy-ydj>*

<b>DATE: 05-02-21 (Day 1)</b>	
<b>TIME</b>	<b>EVENTS</b>
<b>09.30 AM – 09.35AM</b>	<b>Welcome Address</b> by Dr. V. Sumitha, Ph.D Asso. Professor & Head I/C, Department of Biotechnology Sri Venkateswara College of Engineering
<b>09.35 AM – 09.40 AM</b>	<b>Prayer Song</b>
<b>09.40 AM – 09.45 AM</b>	<b>Chief Parton’s Address</b> by Prof. M. Sivanandham, Ph. D Secretary & Visiting Professor of Biotechnology Sri Venkateswara Educational & Health Trust, Chennai
<b>09.45 AM – 09.50 AM</b>	<b>Introducing the Chief Guest</b> by <b>Dr. P.K. Praveen Kumar</b> Associate Professor, Department of Biotechnology, Sri Venkateswara College of Engineering, Sriperumbudur
<b>09.50 AM – 10.45 AM</b>	<b>Inaugural address (Lecture Session – I)</b> <b>Technical Lecture on “Genomics data science”</b> by <b>Prof. M. Sivanandham, Ph. D</b> Secretary & Visiting Professor of Biotechnology Sri Venkateswara Educational & Health Trust, Chennai
<b>10.45 AM – 10.55 AM</b>	<b>Tea Break</b>

10.55 AM – 12.10 PM	<p style="text-align: center;"><b><u>Training Session – I</u></b></p> <p style="text-align: center;"><b>R Programming Basics</b></p> <p style="text-align: center;">by <b>Mr. J.Hariharan</b> Asst.Professor, Department of Biotechnology, SVCE,Sriperumbudur-602117</p>
12.10 PM – 01.00 PM	<p style="text-align: center;"><b>Lunch break</b></p>
01.00 PM – 01.05 PM	<p style="text-align: center;"><b>Introducing the Chief Guest</b></p> <p style="text-align: center;">by <b>Mr. S. Naga vignesh</b> Assistant Professor, Department of Biotechnology, Sri Venkateswara College of Engineering, Sriperumbudur</p>
01.05 PM – 02.00 PM	<p style="text-align: center;"><b><u>Lecture Session – II</u></b></p> <p style="text-align: center;"><b>Technical Lecture on “Differential Expression of Genes with SNPs”</b></p> <p style="text-align: center;">by <b>Dr. Dhivya Shanmugarajan</b> Application Scientist, BIOVIA DS, Altem Technologies, Bengaluru</p>
02.00 PM – 02.10 PM	<p style="text-align: center;"><b>Tea break</b></p>
02.10 PM - 03.30 PM	<p style="text-align: center;"><b><u>Training Session-II</u></b></p> <p style="text-align: center;"><b>Application of R programming – R charts, Graphs, Statistics, Data science in Precision Medicine</b></p> <p style="text-align: center;">By <b>Dr. P.K. Praveen Kumar</b> Associate Professor, Department of Biotechnology, Sri Venkateswara College of Engineering, Sriperumbudur</p>



Common Google Meet Link for Day2: <https://meet.google.com/nvu-yyks-tse>

Google Meet Link of training sessions for Day2: <https://meet.google.com/btx-udez-coi>

DATE: 06-02-21 (Day 2)	
TIME	EVENTS
09.30 AM -10.40 AM	<b><u>Training Session-III</u></b>
	<p><a href="https://meet.google.com/btx-udez-coi">https://meet.google.com/btx-udez-coi</a> <b>Machine Learning Techniques in Genomics</b> by Mr. S.Naga vignesh Asst.Professor, Department of Biotechnology, SVCE,Sriperumbudur-602117</p>
10.40-10.50 AM	<b>TEA BREAK</b>
10.50 AM-11.50 AM	<b><u>Lecture Session –III</u></b>
	<p><a href="https://meet.google.com/nvu-yyks-tse">https://meet.google.com/nvu-yyks-tse</a> <b>Technical Lecture on “Bridging Gene Expression and Chemistry”</b> by Dr. Dhivya Shanmugarajan Application Scientist, BIOVIA DS, Altem Technologies, Bengaluru</p>
11.50 PM – 12.40 PM	<b>LUNCH</b>
12.40 PM – 02.00 PM	<b><u>Training Session – IV</u></b>
	<p><a href="https://meet.google.com/btx-udez-coi">https://meet.google.com/btx-udez-coi</a> <b>Precision vaccine design approach – Predicting T-cell epitope for Nipah virus on Indian population</b> by Dr. P.K.Praveen Kumar Asso.Professor, Department of Biotechnology, SVCE,Sriperumbudur-602117</p>
02.00 PM – 02.10 PM	<b>TEA BREAK</b>

02.10 PM – 02.15 PM	<p><a href="https://meet.google.com/nvu-yyks-tse">https://meet.google.com/nvu-yyks-tse</a>  <b>Introducing the Chief Guest</b>  by  <b>Mr. J. Hariharan</b>  Assistant Professor, Department of Biotechnology,  Sri Venkateswara College of Engineering, Sriperumbudur</p>
02.15 PM – 03.10 PM	<p><b>Lecture Session-IV</b></p>
	<p><a href="https://meet.google.com/nvu-yyks-tse">https://meet.google.com/nvu-yyks-tse</a>  <b>Technical Lecture on “Computational multi-tissue models of health and disease”</b>  by  Dr. Manikandan Narayanan  Associate Professor, Department of Computer Science and Engineering  IIT Madras, Chennai</p>
03.10 PM – 03.15 PM	<p><a href="https://meet.google.com/nvu-yyks-tse">https://meet.google.com/nvu-yyks-tse</a>  <b>Valedictory address</b>  by  Prof. S.Ganesh Vaidyanathan, Ph.D  Principal  Sri Venkateswara College of Engineering</p>
03.15 PM – 03.20 PM	<p><a href="https://meet.google.com/nvu-yyks-tse">https://meet.google.com/nvu-yyks-tse</a>  <b>Feedback from the participants about the workshop chaired</b>  by  Dr. V. Sumitha  Associate Professor &amp; Head I/C  Department of Biotechnology  SVCE, Sriperumbudur-602117</p>
03.20 PM – 03.25 PM	<p><a href="https://meet.google.com/nvu-yyks-tse">https://meet.google.com/nvu-yyks-tse</a>  <b>Vote of Thanks</b>  by  Dr. P.K.Praveen Kumar  Associate Professor,  Department of Biotechnology,  SVCE, Sriperumbudur-602117</p>
03.25 PM – 03.30 PM	<p><a href="https://meet.google.com/nvu-yyks-tse">https://meet.google.com/nvu-yyks-tse</a>  <b>NATIONAL ANTHEM</b></p>



**SRI VENKATESWARA COLLEGE OF ENGINEERING (AUTONOMOUS)  
DEPARTMENT OF BIOTECHNOLOGY**

**NATIONAL WORKSHOP ON "GENOMICS DATA SCIENCE IN PRECISION MEDICINE DESIGN"  
5th and 6th February 2021**

**LIST OF EXTERNAL PARTICIPANTS FOR THE WORKSHOP**

S.No	Name	Address of the Participant's Institute/ Company	Location	Email address
1	Arun Kumar M	Sastra University	Thanjavur, TN	arunkumar@src.sastra.edu
2	Reshma V	Anna University-BIT	Tiruchirapalli, TN	vreshma1999@gmail.com
3	M.R. Suchitra	Sastra University	Thanjavur, TN	suchitra@src.sastra.edu
4	S.Sheikabdulla	Sastra University	Thanjavur, TN	sheiklaahif@gmail.com
5	Arnica R	K.S. Rangasamy College of Engineering	Namakkal, TN	rkarni2001@gmail.com
6	P. Sampathkumar	Sastra University	Thanjavur, TN	pskumar16@yahoo.com
7	S.Gowthami	K.S. Rangasamy College of Engineering	Namakkal, TN	gouthemi2001@gmail.com
8	Fayaz SM	Manipal Institute of Technology	Manipur, Karnataka	fayaz.shaik@manipal.edu
9	Shwetha Andar Pillai	St. Joseph College of Engineering	Chennai, TN	radna24@gmail.com

**LIST OF INTERNAL PARTICIPANTS FOR THE WORKSHOP**

S.No	Name of the Internal Participants from SVCE	Year/ Branch	Email id
1	Sowdhamini.M	VI sem, B.Tech (BIO)	2018bio0122@svce.ac.in
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3	Sharon Roselyn J	VI sem, B.Tech (BIO)	ferouz2001@gmail.com
4	Neha B	VI sem, B.Tech (BIO)	2018bio0132@svce.ac.in
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6	Sushmitha Magesh	VI sem, B.Tech (BIO)	2018bio0640@svce.ac.in
7	Adithiya.B	VI sem, B.Tech (BIO)	2018bio0591@svce.ac.in
8	Swetha Magesh	VI sem, B.Tech (BIO)	2018bio0644@svce.ac.in
9	Angelin Selva Princess K	VI sem, B.Tech (BIO)	princess.k.4july@gmail.com
10	Anusuya Narayanan	VIII sem, B.Tech (BIO)	2017bio0499@svce.ac.in
11	Chandini S	VIII sem, B.Tech (BIO)	2017bio0490@svce.ac.in
12	Deeksha M	VIII sem, B.Tech (BIO)	2017bio0121@svce.ac.in
13	Dinesh Kumar N A	VIII sem, B.Tech (BIO)	2017bio0786@svce.ac.in
14	Dinesh S	VIII sem, B.Tech (BIO)	2017bio0231@svce.ac.in
15	Hari S Vishal	VIII sem, B.Tech (BIO)	2017bio0829@svce.ac.in
16	Harini P P	VIII sem, B.Tech (BIO)	2017bio0228@svce.ac.in

17	Harish R	VIII sem, B.Tech (BIO)	2017bio0484@svce.ac.in
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19	Madhivadhani S	VIII sem, B.Tech (BIO)	2017bio0594@svce.ac.in
20	Monica R	VIII sem, B.Tech (BIO)	2017bio0444@svce.ac.in
21	Naveenkumar G	VIII sem, B.Tech (BIO)	2017bio0908@svce.ac.in
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25	Rajesh R	VIII sem, B.Tech (BIO)	2017bio0534@svce.ac.in
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27	Shruthi Sampath	VIII sem, B.Tech (BIO)	2017bio0606@svce.ac.in
28	Dharshene K	II sem, M.Tech (BIO)	dharshene9098@gmail.com
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30	Aakanksha Venkateswar	IV sem, B.Tech (BIO)	2019bt0019@svce.ac.in
31	Anirudh J	IV sem, B.Tech (BIO)	2019bt0409@svce.ac.in
32	Gomathi T	IV sem, B.Tech (BIO)	2019bt0104@svce.ac.in
33	Haripriya A S	IV sem, B.Tech (BIO)	2019bt0188@svce.ac.in
34	Kamalavarshini B	IV sem, B.Tech (BIO)	2019bt0447@svce.ac.in
35	Lakshmi B	IV sem, B.Tech (BIO)	2019bt0106@svce.ac.in
36	Manaswini V	IV sem, B.Tech (BIO)	2019bt0090@svce.ac.in
37	Nithin Raj S	IV sem, B.Tech (BIO)	2019bt0391@svce.ac.in
38	Preyadarshne T	IV sem, B.Tech (BIO)	2019bt0184@svce.ac.in
39	Vishnupriya V	IV sem, B.Tech (BIO)	2019bt0629@svce.ac.in

*P.K. Praveen*

**(Organizing Secretary of the Workshop)**

Dr. P.K. PRAVEEN KUMAR, M.Tech., Ph.D  
Associate Professor  
Department of Biotechnology  
Sri Venkateswara College of Engineering  
Sriperumbudur Tk - 602 117, Tamilnadu, India  
Email: praveenpk@svce.ac.in, Mobile: +91 9444495008



**HOD I/C**

Head of the Department  
Department of Biotechnology  
Sri Venkateswara College of Engineering  
Sriperumbudur Tk - 602 117, Tamilnadu, India



**SRI VENKATESWARA COLLEGE OF ENGINEERING**  
**DEPARTMENT OF BIOTECHNOLOGY**

**CSIR SPONSORED NATIONAL WORKSHOP ON "GENOMICS DATA SCIENCE IN PRECISION MEDICINE DESIGN" 05th and 06th February 2021**

S.No	Email Address	Name	Institute	Participant type	Review about content delivered [Registration Processes]	Review about content delivered [Technical Lecture on "Genomics data science"]	Review about content delivered [Training Session on " R Programming Basics "]	Review about content delivered [Technical Lecture on "Differential Expression of Genes with SNPs"]
1	suchitra@src.sastra.edu	Dr. M.R.SUCHITRA	Src, Sastra University	Faculty	Excellent	Very Good	Very Good	Very Good
2	fayaz.shaik@manipal.edu	Dr. Fayaz SM	Manipal Institute of Technology	Faculty	Very Good	Very Good	Excellent	Very Good
3	sheiklaahif@gmail.com	Dr.S.SHEIK ABDULLA	SASTRA Deemed University, SRC, Kumbakonam	Faculty	Excellent	Excellent	Excellent	Very Good
4	pskumar16@yahoo.com	Dr. P. Sampathkumar	SASTRA Deemed University, SRC, Kumbakonam	Faculty	Excellent	Excellent	Excellent	Excellent
5	radna24@gmail.com	Shwetha Andar Pillai	St. Joseph's College of Engineering	Student	Excellent	Excellent	Excellent	Excellent

Review about content delivered [Training Session on "Application of R programming – R charts, Graphs, Statistics, Data science in Precision Medicine"]	Review about content delivered [Training Session on "Machine Learning Techniques in Genomics "]	Review about content delivered [Technical Lecture on "Bridging Gene Expression and Chemistry"]	Review about content delivered [Training Session on " Precision vaccine design approach – Predicting T-cell epitope for Nipah virus on Indian population "]	Review about content delivered [Technical Lecture on "Computational multi-tissue models of health and disease" ]	Review about content delivered [Knowledge obtained]	Review about content delivered [Audio/Video Quality]	Review about content delivered [Over all organisation of Workshop]	Any other feedback which you want to give to the organising team.
Excellent	Very Good	Very Good	Excellent	Excellent	Good	Very Good	Excellent	Excellent work
Very Good	Good	Good	Very Good	Very Good	Very Good	Very Good	Very Good	It would be helpful if the recorded videos and the training material of all the sessions are
Very Good	Very Good	Very Good	Excellent	Very Good	Excellent	Excellent	Excellent	There is no substitute for hard work nothing but team work or re spirit.
Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent. Well organized
Excellent	Very Good	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent presentation and organization



Organizing secretary/ BIO

Dr. P.K. PRAVEEN KUMAR, M.Tech., Ph.D  
Associate Professor  
Department of Biotechnology  
Sri Venkateswara College of Engineering  
Sriperumbudur Tk - 602 117, Tamilnadu, India  
Email: praveenk@svcoe.ac.in, Mobile: +91 9444495008



HOD / BIO

Head of the Department  
Department of Biotechnology  
Sri Venkateswara College of Engineering  
Sriperumbudur Tk - 602 117, Tamilnadu, INDIA



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**35 Years of Excellence**

## Certificate of Participation

This is to certify that Ms. Shruthi Sampath of Sri Venkateswara College of Engineering has participated in the CSIR-sponsored National Workshop on “Genomics data science in Precision Medicine Design” organized by the Department of Biotechnology, Sri Venkateswara College of Engineering in association with Altem Technologies, Bengaluru from 05.02.2021 to 06.02.2021.

*P. K. Praveen*  
Organising Secretary

*[Signature]*  
HoD I/C

*[Signature]*  
Principal









Top Ranked Affiliated Institution in Tamil Nadu

5/5 Star Rated Innovation Cell

Top Performer

Recognized Incubation Center



Certified Organization




Accreditations

*SVCE Online National Workshop on  
“Genomics Data Science in Precision Medicine Design”*

## Multi-layer network learning and analysis: towards a whole-human-body genomic model

Feb 6, 2021  
Manikandan Narayanan  
Faculty, Computer Science and Engg., IIT Madras  
PI, Bioinformatics and Integrative Data Science (BIRDS)  
(work supported by WellcomeTrust/DBT India Alliance Intermediate Fellowship award)

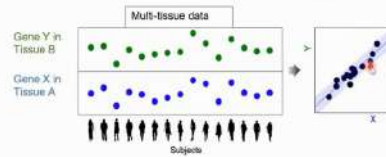





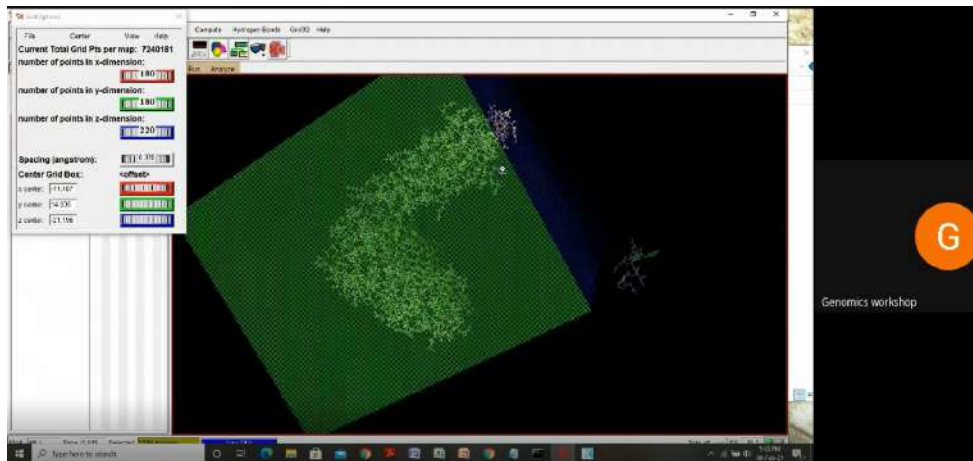
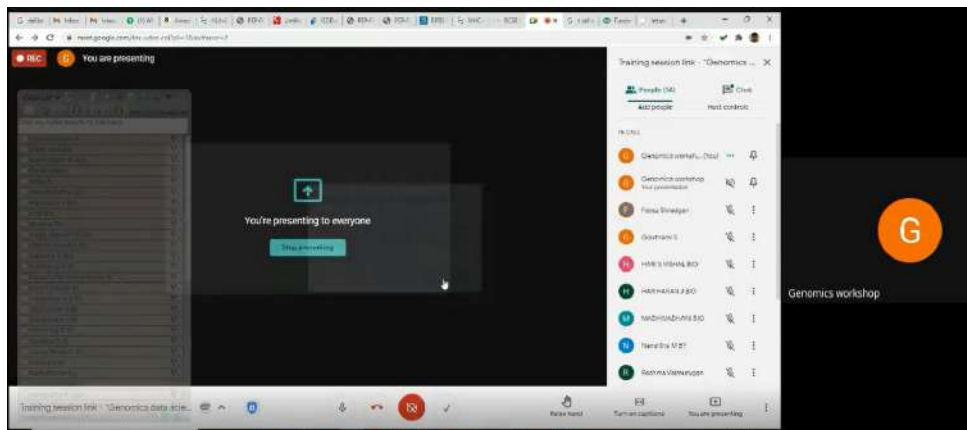
## Mapping interactions: premise and challenges!

**Premise:** Interaction between genes in the same or different tissues often manifests as statistical correlation between these genes across individuals.



### Challenges:

- Many factors could drive statistical correlation (e.g., genetic confounding)
- High-dimensional and noisy data
- *Advances in computational/statistical methods* needed to make progress!



**CSIR- NEW DELHI SPONSORED NATIONAL WORKSHOP ON  
“GENOMICS DATA SCIENCE IN PRECISION MEDICINE DESIGN”  
05<sup>th</sup> & 06<sup>th</sup> February, 2021**

**ACTIVITY REPORT**

The Department of Biotechnology, Sri Venkateswara College of Engineering conducted the National workshop on “Genomics data science in precision medicine design” sponsored by CSIR – New Delhi held on 05<sup>th</sup> and 06<sup>th</sup> February, 2021.

Nine external participants both faculties and students registered for this National workshop from various colleges in India. 40 internal participants from SVCE were also registered for this course. Inaugural function started with a prayer song at 9.30 AM. Welcome address was delivered by Dr. V. Sumitha HOD I/C, Department of Biotechnology, Sri Venkateswara College of Engineering, Sriperumbudur. It was followed by the Chief Patron’s address by Prof. M. Sivanandham, Secretary, Sri Venkateswara Educational and Health Trust, Kotturpuram, Chennai. Organizing secretary, Dr. P.K.Praveen kumar, Associate Professor, Department of Biotechnology, SVCE introduced the Chief guest, Prof. M. Sivanandham . Chief guest delivered an inaugural address and technical talk on “Genomics data science”. After tea break, Coordinator - Mr. J. Hariharan, Assistant Professor, Department of Biotechnology, SVCE has started the first training session on “R programming basics”. Immediately after the lunch break, guest speaker – Dr. Dhivya Shanmugarajan was introduced by Coordinator -Mr. S. Nagavignesh, Assistant Professor, Department of Biotechnology, SVCE. Dr. Dhivya Shanmugarajan, senior application scientist, BIOVIA DS, Altem technologies, Bengaluru present a technical lecture on “Differential Expression of Genes with SNPs”. After that session, following the tea break a training session was provided by Dr.P.K.Praveen Kumar on “Application of R programming – R charts, graphs, statistics, data science in precision medicine”.

On second day, Mr. S. Naga vignesh started the third training session of the workshop on “Machine learning techniques in Genomics” at 9.30 AM. After the tea break, Dr. Dhivya Shanmugarajan has presented a technical lecture on “Bridging Gene Expression and Chemistry”. After the lunch break, the fourth training session on “Precision vaccine design approach – Predicting T-cell epitope for Nipah virus on Indian Population” was handled by Dr. P.K. Praveen Kumar. Later, the valedictory guest speaker- Dr. Manikandan Narayanan was introduced by Mr. J. Hariharan. Dr. Manikandan Narayanan, Associate Professor, Department of Computer Science and Engineering, IITM, Chennai delivered a technical lecture on “Computational multi-tissue models of health and disease”. Finally Valedictory address and a technical talk on “Genome Pathrika” was provided by Prof. S. Ganesh Vaidyanathan, Principal, Sri Venkateswara College of Engineering. Online Feedback was collected from the participants about the workshop chaired by Dr. V. Sumitha. The workshop programme was finally ended with Vote of Thanks by Dr. P.K. Praveen Kumar and with National Anthem by 3.30 pm.

All the participants have provided excellent feedback on Guest lectures and Hands-on-training sessions arranged. Appreciation is received excellent to the Organizing secretary because of supply of training materials and recorded videos on time. In future, I have planned to conduct three days training workshop to increase hands-on-training sessions. Thanks for providing me this opportunity.

Thanking you,

Sincerely,



**(Organizing Secretary of the Workshop)**

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