



**SRI BALAJI VIDYAPEETH (SBV)**

(Deemed to be University)  
U/S 3 of UGC Act 1956  
Puducherry-607402

This document contains the details of the

**Value added course on Data Analytics in Health Care Management,**

conducted by Internal Quality Assurance Cell,

Sri Balaji Vidyapeeth, Deemed to be University.



(This document is attested from pages 1- 22)



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Puducherry-607402

### **Criteria 1**

#### **Metrix 1.3 : Curriculum Enrichment**

##### **1.3.2**

### **Index Page**

#### **Details of Value added course in Data Analytics in Health Care Management**

Links to documents (Click on the links to navigate to the page)

1. [Link to Prospectus](#)
2. [Brochure](#)
3. [Event Report](#)
4. [Feedback Response](#)
5. [Course Content](#)
6. [Sample Certificate](#)
7. [Enrolled List of students](#)

**REGISTRAR**  
**SRI BALAJI VIDYAPEETH**  
(Deemed University u/s 3 of UGC ACT, 1956)  
Accredited by NAAC with 'A' Grade  
Pillaiyarkuppam, Pondicherry - 607 402.



**SRI BALAJI VIDYAPEETH**

DEEMED TO BE UNIVERSITY  
ACCREDITED WITH 'A' GRADE BY NAAC



**INTERNAL QUALITY ASSURANCE CELL**



**Shri. M.K. RAJAGOPALAN**  
Chancellor, SBV



**Prof. SUBHASH CHANDRA PARIJA**  
Vice-Chancellor, SBV

# VALUE ADDED COURSES

## **On campus - Pondicherry at Mahatma Gandhi Medical College**

Course on Hospital infection control ( 17<sup>th</sup> & 18<sup>th</sup> February 2020)

Course on medico legal case ( 19<sup>th</sup> & 20<sup>th</sup> February 2020)

Course on critical care nursing ( 24<sup>th</sup> & 25<sup>th</sup> February 2020)

Course on fire safety ( 24<sup>th</sup> & 25<sup>th</sup> February 2020)

Course on public administration in health ( 6<sup>th</sup> & 7<sup>th</sup> March 2020)

## **Off campus - Chennai at Sri Sathiya Sai Medical College**

Course on radiation safety

Data analytics in health care management

Course in quality assurance in operation theater



*This document is attested from pages 1-20*

**Resource Person**



**Q- TEAM  
MUMBAI**

**REGISTRAR**  
**LAJI VIDYAP**  
University w/s 3 of UGC  
by NAAC with 'A'  
Pam, Pondicherry

TH  
11 19  
de  
7 402.



## EVENT REPORT FORM FOR IQAC/ MAPCOM/ WEB INFORMATION



**Shri Sathya Sai Medical College and Research Institute**

Tiruporur-Guduvancherry Main road, Ammapettai Village, Nellikuppam

Sembakkam Post, Thirupporur Taluk, Chengalpattu Dist-603108

Details of the Program	
<b>Name/ Title of the Program</b>	<b>Value added Course – Data analytics in Health care management</b>
<b>Type of the Program</b> <i>(Please mention if this is a CME/CDE/CNE/Conference/ workshop/ seminar/ symposium/ panel discussion/ Faculty development program/ student enrichment program)</i> <i>(Also please mention the level, if this is Regional/ National/ International/ Institutional/ University)</i>	<b>Student enrichment program</b>  Institutional Level
<b>Conducted by</b> <i>(Please mention the department name)</i>	<b>Under the ambit of Sri Balaji Vidyapeeth - Internal Quality Assurance Cell - Department of Community Medicine, SSSMCRI</b>
<b>Date</b>	<b>17.02.2020 and 18.02.2020</b>
<b>Venue</b>	<b>MEU Hall, College block, SSSMCRI</b>
<b>Target Audience/ Stakeholders</b>	<ol style="list-style-type: none"> <li>1. Postgraduates, Department of Community Medicine</li> <li>2. Final year M.B.B.S students</li> <li>3. AHS interns</li> <li>4. AHS students</li> </ol>
<b>Number of participants registered / attended</b>	<b>25 participants registered</b> <b>Day 1: 24.02.2020 = 25 persons attended</b> <b>Day 2: 25.02.2020 = 25 persons attended</b>
<b>Program sponsors</b>	<b>Sri Balaji Vidyapeeth</b>
<b>Credit points/ hours</b>	<b>Nil</b>
<b>Objectives of the Program</b>	<b>Understand the importance of Data analysis in Health care management</b>
<b>Activities conducted in the Program</b>	<b>Didactic Lectures, Small Group Discussions</b>



**EVENT REPORT FORM  
FOR IQAC/ MAPCOM/ WEB INFORMATION**



Resource Persons involved					
S no	Name	Designation	Affiliation	Email id/ Phone numbers	Topic taken
1.	Sitaram Tadepalli	Data scientist	Tata consultancy services		

**Detailed report of the program**

The second of the approved value-added courses for SSSMCRI campus was conducted on Data analytics in Health care management on 17.02.2020 and 18.02.2020. The course had a mixture of participants, Post graduates, Allied Health Science interns and students from department of Community Medicine and Final year M.B.B.S students. The sessions were taken by Mr. Sitaram tadepalli, Data scientist from Tata consultancy who represented here as one of the consultants of Q Team.

On 17.02.2020, the course started with welcome address given by Dr. Harshavardhan B, Coordinator of this course, followed by SBV anthem. Dr. A. Sukumaran Dean, SSSMCRI delivered his remarks about the utility and need of the course. The chief Co-coordinator of value added courses from SSMCRI, introduced the resource person and then resource person started the course on Data analytics. Mr. Sitaram tadepalli had sessions which was about the Data analytics in Health care management.

On the second day (18.02.2020), the resource person built upon the knowledge shared the previous day. The sessions were concluded at 4:00 PM and the resource person was felicitated by Dr. Harshavardhan.B, Coordinator of this course, SSSMCRI. We obtained the feedback from the participants in Google Forms and also in printed forms. Vote of Thanks was given by Dr. Harshavardhan.B.

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Declared U/S 3 of UGC Act 1956

'A' Grade NAAC 2015

INTERNAL QUALITY ASSURANCE CELL

**EVENT REPORT FORM  
FOR IQAC/ MAPCOM/ WEB INFORMATION**



**Summary of the report**

*(in minimum 150 words, in a prose format for web information, social media and press)*

Value added course on Data analytics on Health care management, a two-day course conducted on 17.02.2020 and 18.02.2020 in Sathya Sai Medical College and Research Institute.

Resource person from Q team, Mr. Sitaram tadepalli, Data scientist from Tata Consultancy services.

Post graduates, Allied Health Science interns and students from department of Radio diagnosis and Final year M.B.B.S students participated in this course.

*Please ensure if the following enclosures have been attached.*

**Enclosures Check List**

<b>Invitation/ Brochure/ Circular</b>	<b>Yes</b>	<b>Analyzed feedback report in graphical form</b>	<b>Yes</b>
<b>Sample certificate</b>	<b>No</b>	<b>Geo-tagged good quality photographs</b> <i>(enclose separately as attachment as well as in word document with legends)</i>	<b>Yes</b>
<b>Sample feedback form</b>	<b>No</b>	<b>Any other (Please type here)</b>	<b>Nil</b>

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## DATA TEMPLATE FOR FEEDBACK RESPONSE

- Feedback obtained on VALUE ADDED COURSES-Data analytics in Health care management
- Feedback provided by Participants
- Feedback obtained from Date 24.02.2020 / 25.02.2020

Sr. No	Feedback questions (Please enter the questions from the feedback form)	Number of responses				
		Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
1	The theme of the workshop was relevant	07	17	03	-	-
2	The facilitator delivered the content effectively	10	14	02	01	-
3	Time was well managed	08	16	03	-	-
4	The knowledge and skills I learned is useful to me	08	15	04	-	-
5	I would recommend this workshop to others	05	16	05	-	01

Compiled by:

Dr. Carounanidy Usha

28.02.2020

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Mr. Sitaram Tadepalli works as Data Scientist with Tata Consultancy Services and has over 14 years of experience in solution designing, customer relationship and competency development.

Mr. Sitaram Co-Founded GeekL Technologies, an Educational start-up to provide affordable cutting-edge technology education to the masses. He acts a Chief Technology Officer with GeekL and handles areas on Data Analytics, Artificial Intelligence, Machine Learning, Cloud Computing and Big Data Analytics.

He is researching the implications of emerging technologies such as Big Data and Analytics, Machine Learning and artificial intelligence on business models. He works in corporate research and development division exploring initiatives on employee experiences, platform models, conversational systems, crowdsourcing, and innovation ecosystems.

Sitaram started his career as an Assembler programmer with zOS Mainframe systems and gradually expanded his horizon into various niche technology areas. He has worked in various industry verticals such as Healthcare, Banking, Insurance, Travel, Transportation and Hospitality.

Sitaram is a member of IEEE and Life member of Cloud Computing Innovation council of India. He is acting as Secretary and Treasurer for Technology, Engineering and Management Society, IEEE Hyderabad Section.

He has published many research papers in National and International conferences in the area of Big Data Analytics and Internet of Things and a patent on "Method and System Providing Analytics Platform for deriving Enterprise Collaboration Metrics"

Sitaram holds a Bachelor degree in Electrical and Electronics Engineering from Jawaharlal Nehru Technological University, Hyderabad and Master's degree in Data Analytics from Birla Institute of Technology and Sciences, Pilani, India

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# Value Added Course on "Data Analytics in Health Care Management" - Feedback Form

27 responses

## Name

27 responses

Krithika

Shobana

S. Gokulakrishnan

Merlin Akash

Shivashankari

Dr.nilofur banu

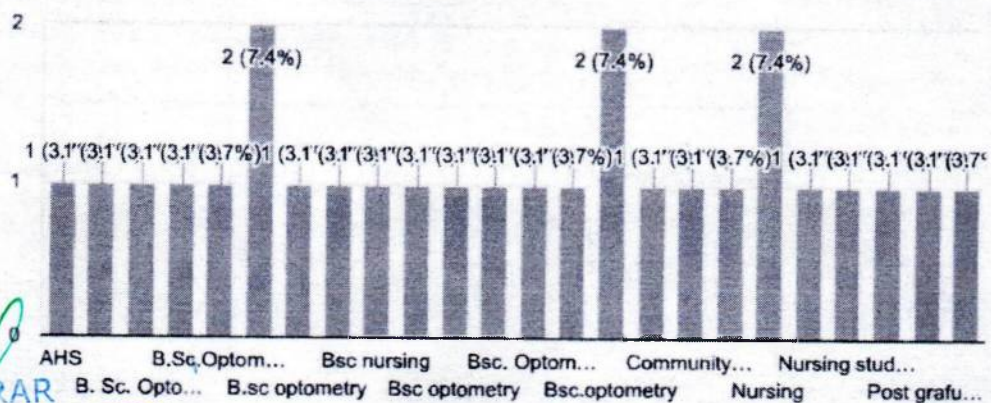
Dr.N.Kalusivslingam

Harini

Anif Fatima.N

## Department / Designation

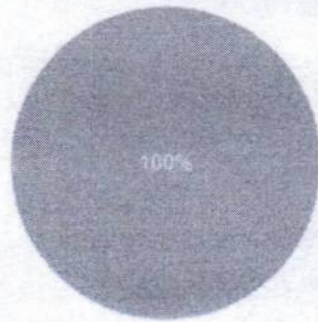
27 responses



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### Institution

27 responses

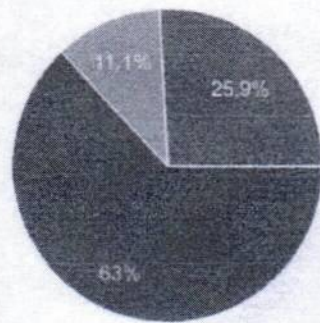


- MGMCRI
- IGIDS
- SSSMCRI
- Kgnr
- AHS
- Admin
- Other

### Workshop Format

1. The theme of the workshop was relevant

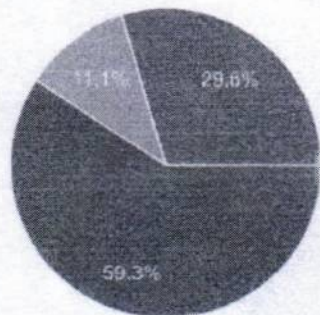
27 responses



- Disagree
- Agree
- Neutral
- Strongly Agree
- Strongly Disagree
- Other

2. Time was well managed

27 responses

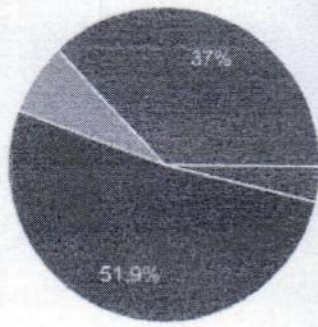


- Disagree
- Agree
- Neutral
- Strongly Agree
- Strongly Disagree
- Other

3. The facilitator delivered the content effectively

27 responses

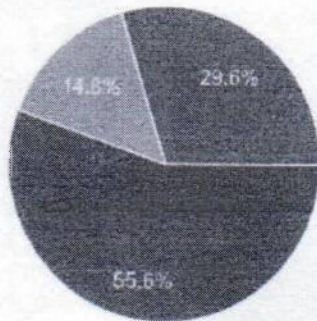
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- Disagree
- Agree
- Neutral
- Strongly Agree
- Strongly Disagree
- Other:

4. The knowledge and skills I learned was useful to me

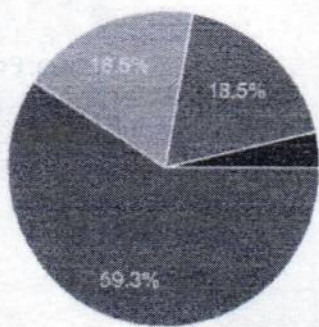
27 responses



- Disagree
- Agree
- Neutral
- Strongly Agree
- Strongly Disagree
- Other:

5. I would recommend this workshop to others

27 responses



- Disagree
- Agree
- Neutral
- Strongly Agree
- Strongly Disagree
- Other:

6. Suggestion or comments to improve the workshop in future

27 responses

Nothing

Nothing

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Good

Keep work .....

Make sure for more attractive classes

Great and useful

Was nice..new experience

For health care it was beyond the scope to understand it need to fine tune and medical need should be addressed

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Google Forms

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# DATA ANALYTICS IN HEALTHCARE

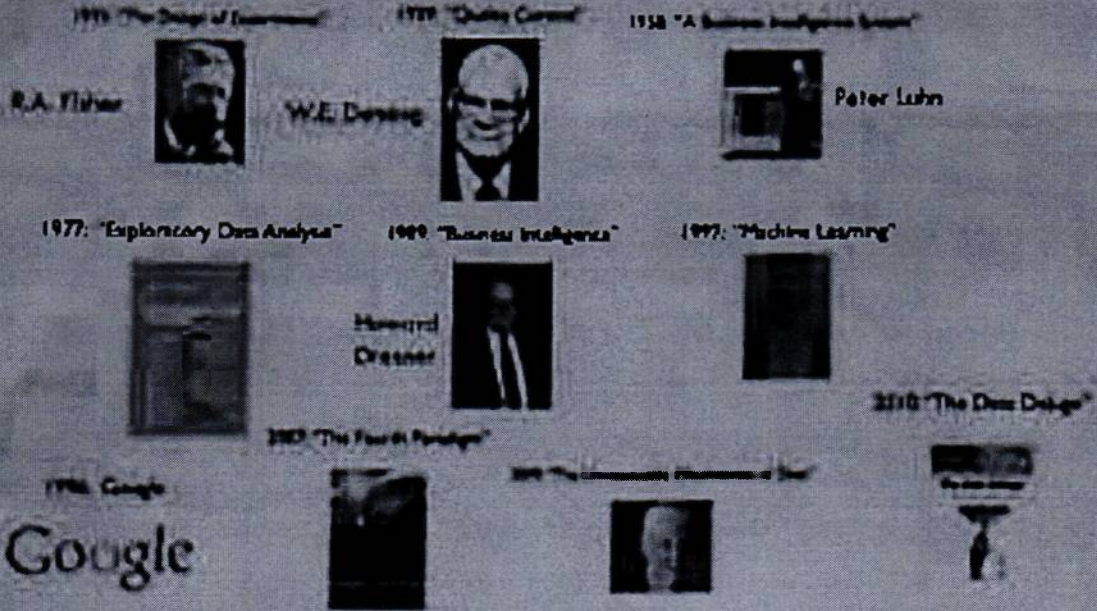
## ABOUT ME



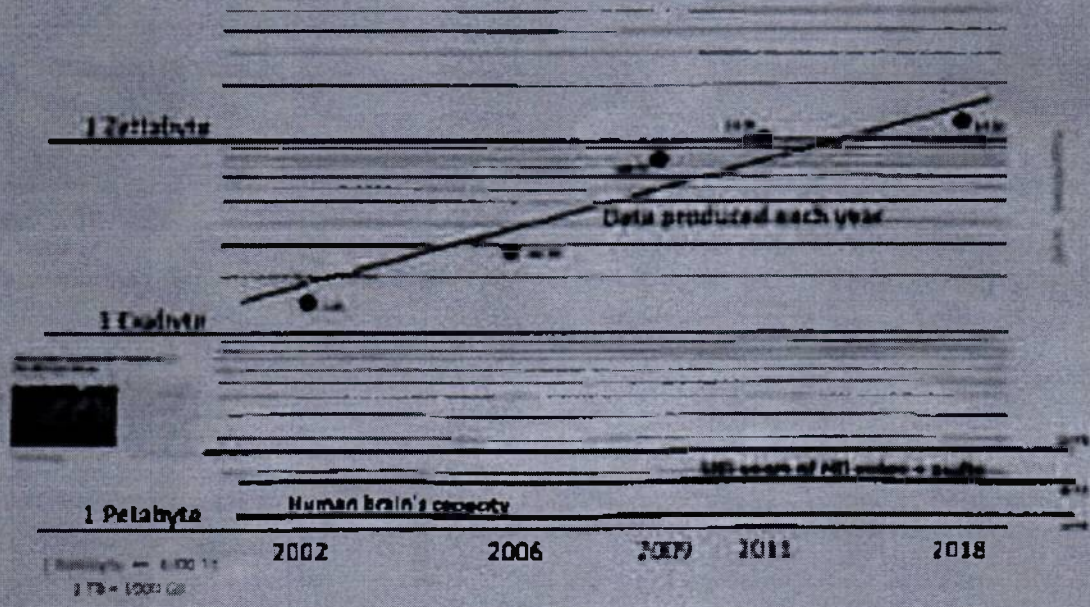
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- 14+ years of experience in IT, Software Development and Solution designing in various Industry verticals.
- 6+ years of experience in Big Data and Data Science related Technologies.
- Data Scientist for a Multi National company
- Freelance Trainer for Big Data and Data Science.
- Hobbies: Running, Trekking, Building Machine Learning models
- Technical Interests: Deep Learning, Conversational Bots, Artificial Intelligence and Scalable systems.

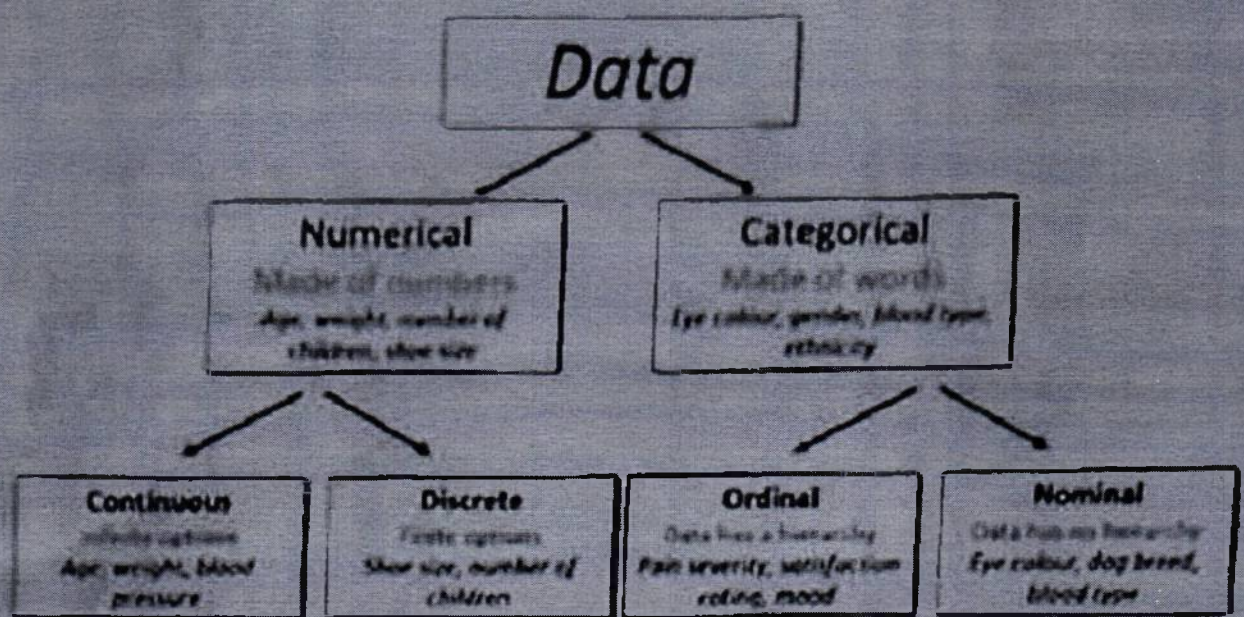
# DATA ANALYSIS HAS BEEN AROUND FOR A WHILE...



Data, data everywhere... *There's certainly a lot of it!*



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Data Analysis is the realization of greater business intelligence by storing, processing, and analyzing data that was previously ignored due to the limitations of traditional data management technologies

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## 4 Types of Data Analytics

### 1 Descriptive

Based on the data, tells what's happening in real time

Accurate & handy for Operations management

Easy to Visualize

### Diagnostic

Automated RCA - Root Cause Analysis

Explains "why" things are happening

Helps Troubleshoot issues

### Predictive

Tells what's likely to happen?

Based on historical data, and assumes a static business plans/models

Helps Business decisions to be automated using algorithms

### Prescriptive

Defines future actions - i.e., "What to do next?"

Based on current data analytics, predefined future plans, goals, and objectives

Advanced algorithms to test potential outcomes of each decision and recommends the best course of action

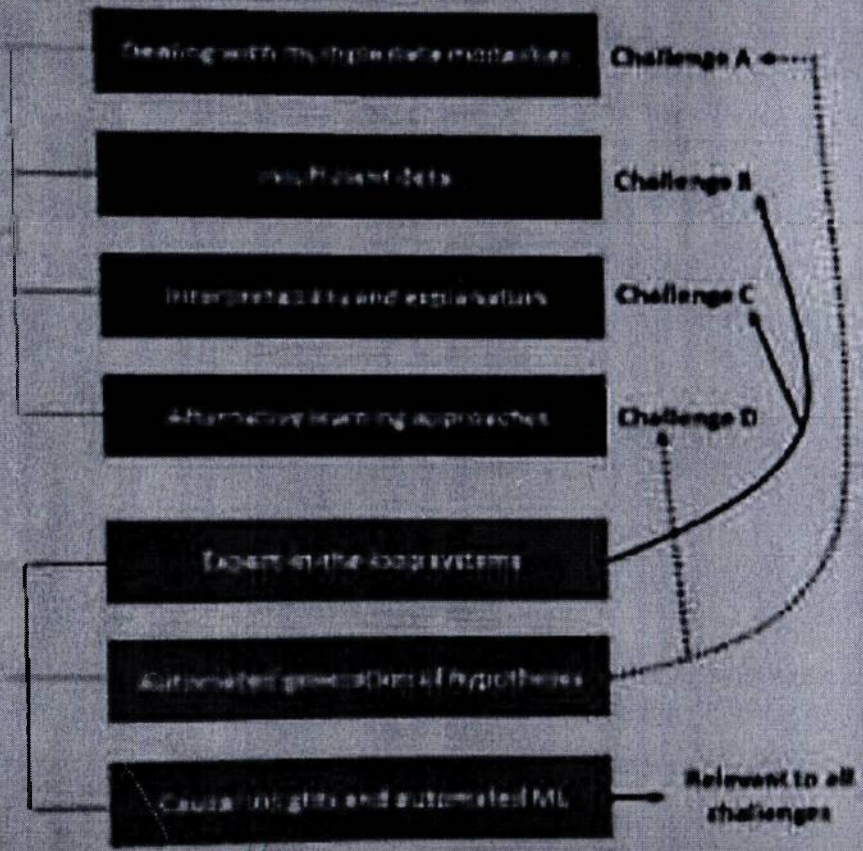
Complexity

© And Pictor

# Applications in Healthcare Domain

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**AI in precision oncology:**  
**Beyond patient stratification**

**Key advances  
& challenges**

**Future  
outlook**

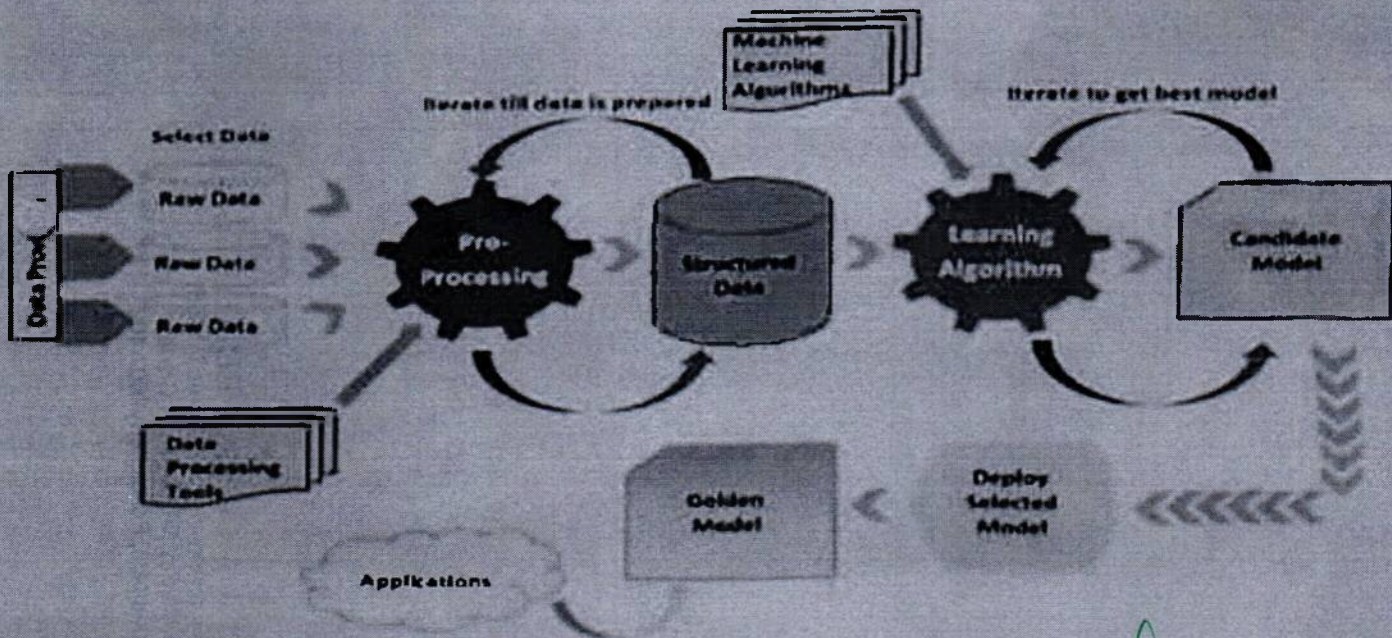
## 10 AI Applications That Could Change Health Care

APPLICATION	POTENTIAL ANNUAL VALUE BY 2026	KEY DRIVERS FOR ADOPTION
Robot-assisted surgery	\$40B	Technological advances in robotic solutions for more types of surgery
Virtual nursing assistants	20	Increasing pressure caused by medical labor shortage
Administrative workflow	18	Easier integration with existing technology infrastructure
Fraud detection	17	Need to address increasingly complex service and payment fraud attempts
Dosage error reduction	16	Prevalence of medical errors, which leads to tangible penalties
Connected machines	14	Proliferation of connected machines/devices
Clinical trial participation	13	Patient cliff; plethora of data; outcomes-driven approach
Preliminary diagnosis	5	Interoperability/data architecture to enhance accuracy
Automated image diagnosis	3	Storage capacity; greater trust in AI technology
Cybersecurity	2	Increase in breaches; pressure to protect health data

SOURCE: ACCENTURE

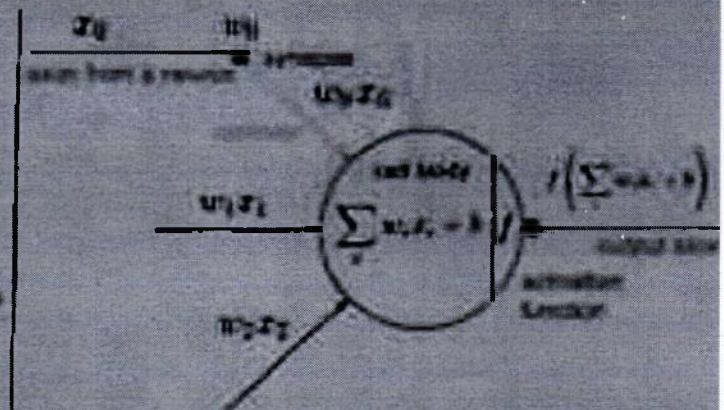
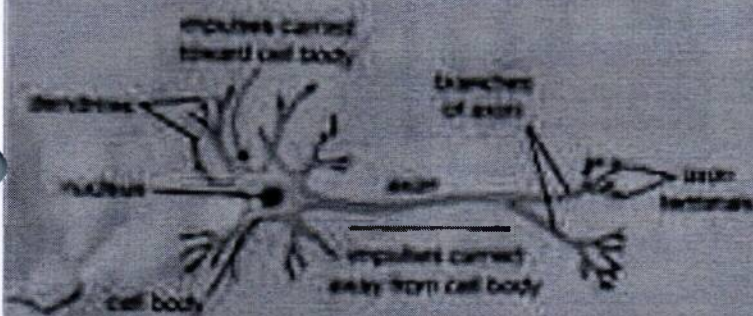
HEALTHCARE DIG

## DATA ANALYTICS PROCESS



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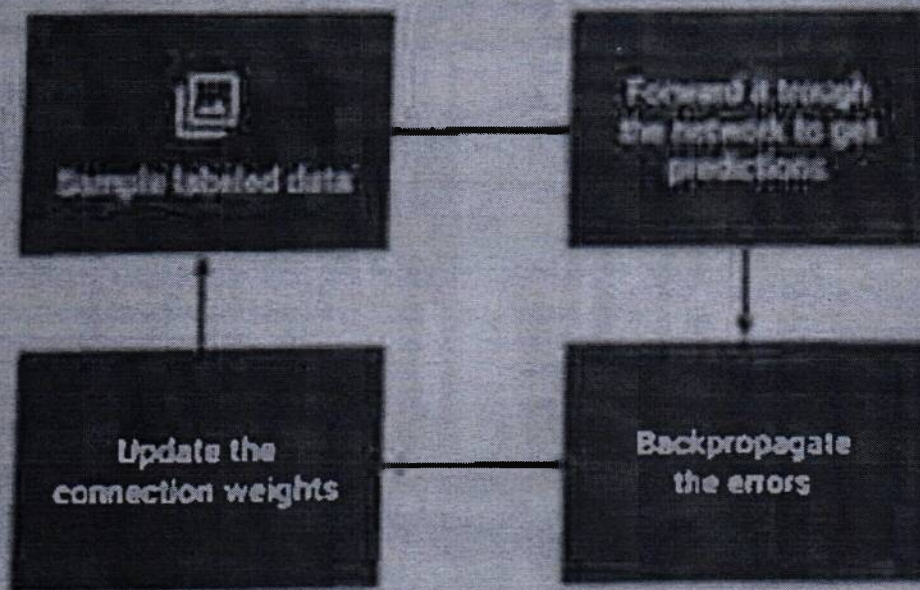
# NEURON AND ARTIFICIAL NEURON



A cartoon drawing of a biological neuron (left) and its mathematical model (right)

# LEARNING PROCESS

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ACCREDITED BY NAAC  
WITH 'A' GRADE



**VIDYAPEETH**

DECLARED TO BE UNIVERSITY  
DECLARED U/S 3 OF THE UGC ACT, 1956



**IQAC-SBV**

# Certificate of Completion

This is to certify that Mr/Ms..... UIN.....

of ..... has successfully completed 16 Hours Value added course in

**DATA ANALYTICS IN HEALTH CARE MANAGEMENT**

*conducted by IQAC , Sri Balaji Vidyapeeth,*

*in association with Q-Team , Mumbai & Noble International university , USA on ..... 2020.*

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Noble International University u/s 3 of UGC ACT, 1956

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President Pillaiyarkuppam, Pondicherry - 607 402 Chancellor  
Noble International University Noble International University

*Jenith Berlin Raj*

Course Coordinator  
**Dr. Jenith Berlin Raj**  
HOD, Dept of Physiology, MGMCRI

*Usha Carounanidy*

Director of Accreditation  
**Dr. Usha Carounanidy**



**SHRI SATHYA SAI MEDICAL COLLEGE AND RESEARCH INSTITUTE**

**DATA ANALYTICS IN HEALTH CARE MANAGEMENT**

17.02.2020 (Monday) and 18.02.2020 (Tuesday)

**Enrolled list of students**

S.No	Name	17.02.2020 Morning	17.02.2020 Afternoon	18.02.2020 Morning	18.02.2020 Afternoon
1	Dr.Kalisivalingam	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
2	Dr.Nilofur Banu	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
3	Dr.Shivashankari	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
4	P.Pavitraa	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
5	S.Linsa	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
6	A.Akshal	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
7	M.Ishwariya	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
8	J.Jerald	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
9	L.Krithika	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
10	Y.Divya lakshmi	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
11	M.Shobana	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
12	N.Anif Fathima	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
13	A.Pooja lakshmi	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
14	R.lakshmi Prabha	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
15	B.R.Nandhini	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
16	S.Gokula Krishnan	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
17	P.Shriani Fernando	<i>[Signature]</i>	<i>[Signature]</i>	ABSENT	
18	Harini Sugumaran	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
19	A.Merlin Akash	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
20	A.Ramya	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
21	J.Thenmozhi	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
22	Sreeraj	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
23	Vysnavi Babu	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
24	Devika Prasannan	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
25	Bhagitha Jayakumar	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

*[Signature]*  
 Head, Department of Physiology  
 Mahatma Gandhi Medical College &  
 Research Institute, Puducherry - 605 002

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