Symbiosis Statistical Institute
Workshop on Data Science in Healthcare for Education and Research

Date: February 12, 2023
Time: 10:00 am - 4:30 pm
Title of the Event: Workshop on Data Science and Healthcare for Education and Research
Venue: Sandipani Leadership Development Centre, Symbiosis International (Deemed University), Lavale, Pune.
Resource Persons: Prof. Dr Sharvari Shukla, Dr Kavishwar Wagholikar, Dr Shawn Murphy, Dr Komal Shah, Dr A.P. Gore, Dr. Madhuri Kulkarni, Dr Devaki Kelkar, Jadeja Dushyantsinh Anopsinh.

Table Plan:

Time	Topic	Panel/Moderator
10:00 am to 10:10 am	Welcome	Sharvaree Shukla & Kavishwar Wagholikar
10:10 am to 11:30am	Should/Can a clinician do research? Workspace Setup Hands-on exercise	Dr. Kavishwar Wagholikar, MBBS PhD Harvard Medical School
11:30am to 11:40 pm	Health record analysis infrastructure in Global North	Diane Keogh, Harvard Catalyst
11:40 to 12:30 pm	Health record analysis infrastructure in Global North	Dr. Shawn Murphy, MD PhD Harvard Medical School
12:30pm to 1:30pm	Lunch Break	
1:30 pm to 2:00 pm	Data Science Principles: Hands on	Dr. Kavishwar Wagholikar, MBBS PhD Harvard Medical School
2:30pm to 3:00 pm	How to work with statisticians and data-scientists	Dr. Sharvari Shukla & Dr. Gore Symbiosis Statistical Institute
3:00pm to 3:15 pm	Indian Cancer genome Atlas project	Dr. Madhuri Kulkarni & Dr. Devaki Kelkar
3:15 pm to 3:30pm	Government Data-infrastructure assessment & Capacity building	Dr. Komal Shah, Indian Institute of public health, Gandhinagar
3:30 pm to 3:45 pm	Developing Health Data-Infrastructure	Jadeja Dushyantsinh Anopsinh (JDA), ART Park

Time	Topic	Panel/Moderator
10:00 am to 10:10 am	Welcome	Sharvaree Shukla & Kavishwar Wagholikar
3:45 pm - 430 pm	Open Discussion & Participant Talks	
430pm	Vote of thanks	

Short Note on the Workshop:

On February 12, 2022, a workshop on Data Science in Healthcare for Education and Research was held by Symbiosis Statistical Institute, Symbiosis International (Deemed University) in collaboration with the Program in Data Science for Global Health, Lab of Computer Science, Massachusetts General Hospital, USA and Harvard Medical School.

An introductory film was played depicting the Founder President, Prof. Dr. S B Mujumdar's inspiration for founding Symbiosis International University and the various fields where the university has established itself. The hosts of the workshop were Neha Ann Cherian and R Prashanthi, students of Symbiosis Statistical Institute (Batch 2022-2024). The workshop began with an invocatory song, Vasudhaiva Kutumbakam: "The World is One Family", sung by Abhishek Jog, a student of Symbiosis Statistical Institute. This was followed by a welcome address given by Prof. Dr Sharvari Shukla, Professor and Director, Symbiosis Statistical Institute, Symbiosis International (Deemed University). She spoke about the courses and unique program structure that is offered at Symbiosis Statistical Institute. Further, she elaborated on Statistical Clinic which is a platform wherein non-statisticians can get their queries in statistics solved. The hosts then introduced Dr. Kavishwar Wagholikar, MBBS PhD, Harvard Medical School who gave an outline of the workshop to the participants. This was followed by a brief address by Dr. Shawn Murphy, MD PhD, Harvard Medical School and Ms. Diane Keogh, Harvard Catalyst.

The workshop then proceeded with the panel discussions moderated by Dr. Kavishwar Wagholikar. He began the panel discussion on "Should/Can a clinician do research?" which also included Hands-on exercises. A survey was circulated where a set of questions were asked about the audience's profession, clinical trials etc to understand demography of the participants. Ms. Diane Keogh discussed the various techniques used in the United States to store electronic health records and the challenges encountered. Further, she briefed the audience on how to use the data collected in clinical trials for research purposes. Dr. Wagholikar then handed over the stage to Dr. Shawn Murphy who discussed the applications of i2b2. The audience was then briefed by Dr Shawn on several projects that used the software along with some details on the security and privacy of data stored in i2b2. This marked the end of the forenoon session.

Dr. Wagholikar resumed the workshop with a panel discussion on "Data Science principles: Hands on". Followed by this, Prof. Dr Sharvari Shukla and Dr. Gore spoke on "How to work with Statisticians and Data Scientists". Dr. Shukla began her presentation by focussing on the significance of proper data tabulation for statistical analysis. She also shared her experience and cited examples of the projects she had worked on to support her claims. She then handed over

the session to Dr. Gore who shared his insights and examples on the use of statistics in everyday life.

Dr. Wagholikar then invited a few speakers from the audience to share their perspective on application of Data Science in Healthcare. The first speaker was Dr. Devaki Kelkar from Prashanti Cancer Care Mission, a breast cancer treatment center in Pune. Dr. Kelkar along with her colleague, Dr. Madhuri Kulkarni presented and shared the shortcomings of their project on "Indian Cancer genome Atlas project". The project was carried out with a sample size of 2000 women, where the researchers faced a major challenge in organizing the data as it had numerous variables like clinical examination, biopsy, follow ups, diagnostics test and so on.

Next, the moderator invited Dr. Komal Shah from Indian Institute of Public Health, Gandhinagar. Dr. Shah spoke about "Government Data-infrastructure assessment and Capacity building" where the i2b2 platform could have been utilised as the study was done on a large dataset; this would help in classifying the factors and arranging the data for better and accurate analysis. Lastly, the moderator invited Mr. Jadeja Dushyantsinh Anopsinh from ART Park who shared his thoughts on "Developing Health Data-Infrastructure". The speaker elaborated on the application of the i2b2 platform on language and speech dataset. Dr. Wagholikar concluded the panel discussion by asking the participants to share their feedback and thanked the speakers and audience for being engaging and interactive.

The workshop was concluded with a Vote of Thanks proposed by Prof. Dr Sharvari Shukla, Director SSI. Overall, the workshop was a great success and received positive feedback from the participants.

Glimpses from the session:
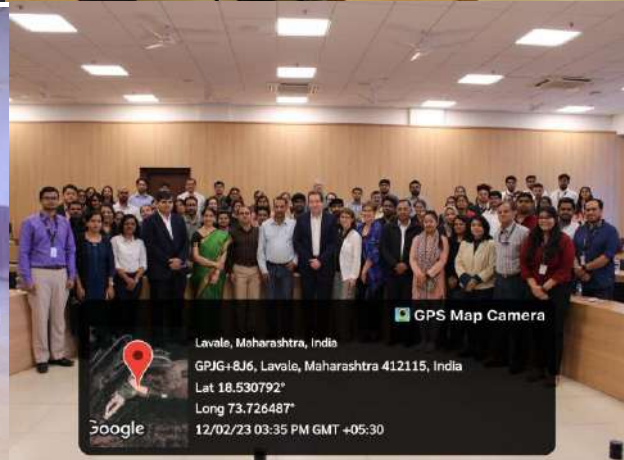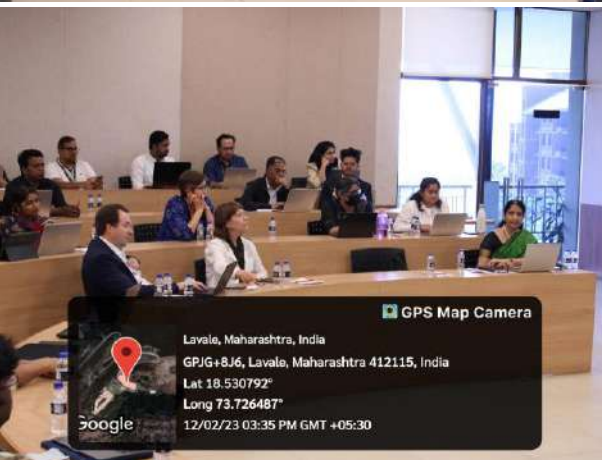
Attendance:

Workshop on Data Science in Healthcare for Education and Research

Sunday, 12 Feb 2023

convened by

SYMBIOSIS STATISTICAL INSTITUTE
Symbiosis International (Deemed University)
in collaboration with
Program in Data Science for Global Health, Lab of Computer Science,
Massachusetts General Hospital

MASSACHUSETTS GENERAL HOSPITAL

HARVARD MEDICAL SCHOOL TEACHING HOSPITAL
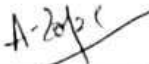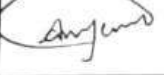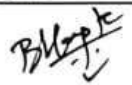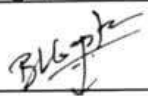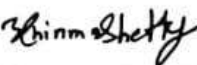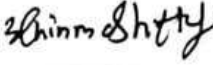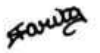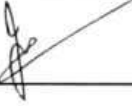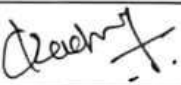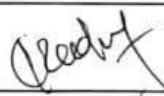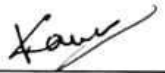
Date: Sunday, 12 Feb 2023
Time: 10:00am to 4:00pm
Venue: Sandipani Leadership Development Centre, Symbiosis International (Deemed University), Lavale, Pune

Attendance is arranged in alphabetical order.

Sr. No.	Name	Pre- Lunch Signature	Post - Lunch Signature	Feedback Signature
1	Aafaq Rather	*(signature)*	*(signature)*	
2	Aanshi Rathi	*(signature)*	*(signature)*	
3	Aarti Kadu			
4	Ajitkumar Jadhav			
5	Amol Gautam	*(signature)*	*(signature)*	*(signature)*
6	Anannya Srivastava	*(signature)*	*(signature)*	

7	Aniket Zope			
8	Anjali Kher			
9	Anujyoti Sonowal			
10	Anupkumar Bongale			
11	Apurva Yemul			
12	Ashwin Ram			
13	Bhagyashree Gupte			
14	Chinmay Shetty			
15	Chinmay Tandale			
16	Deepti Doshi			
17	Dhara Sachdev			
18	Eeshan Bhanap			
19	Harita			
20	Javid Dar			
21	Jayshree Tolani			
22	Jyoti Shewale			
23	Kalyani Kadam			
24	Kanchan Bala Rathore			

#	Name			
25	Madhulika Mishra	*Madhulika Mishra*	*Madhulika Mishra*	
26	Manasi Nagarkar	*signature*		
27	Manisha Gore	*MNme*	*MNme*	
28	Mayur Savsani	*signature*	*signature*	
29	Mesam Laloo	*signature*	*signature*	
30	Miloni Agrawal	*MAgrawal*	*Agrawal*	
31	Mousami Srivastava	*Mousami*	*Mousami*	
32	Nitin Lingayat			
33	Nutan Gangurde	*NGangurde*	*NGangurde*	
34	Prajakti Gokhale	*PAGokhale*	*HGokhale*	
35	Prajwal Bhalsing	*signature*	*signature*	*signature*
36	Praneet Awake	*Praneet*		
37	Prasad Bhanap	*Bhanap*	*Bhanap*	*Bhanap*
38	Pratiksha Nawal			
39	Priya Deshpande	*PDeshpande*	*PDeshpande*	
40	Qaiser Dar			
41	Rajesh Karekar	*signature*		
42	Ramakrishnan Narayanaswamy	*signature*		

43	Ramkrushna Saner			
44	Roshan Bhaladhare			
45	Samadhan Ghubade			
46	Samir Barve			
47	Sanjay Deo			
48	Satyanand Kadloor			
49	Shaheen Shaikh			
50	Shahid Wani			
51	Shivanjali Kadam			
52	Smita Mahajan			
53	Snehil Kumar			
54	Sphurti Chate			
55	Srikanth Tripathy			
56	Suhani Jain			
57	Suresh Kondaveeti			
58	Surya Thapa			
59	T Vijaya Sagar			
60	Tapodeepa Pal			

61	Vedant Tripathi			
62	Vijayakumar K			Good
63	Vijayashree Gokhale	VsGokhale	VsGokhale	good. Tool for beginners.
64	Dr.Vishalakshi Hiremath	Somath	Somath	
65	JDA			
66	Brig Dr Ksatyanand smcw raj mehr			
67.	Dr. Rajesh Karekar	smcw		
68	DR ANAND SHINDIHAU			
69	Dr. Vishal Rudham (SCRI)	VSRa	VSRa	Great Workshop. Best wishes
70	Anuradha Laxminarayan			
71.	Dr. Pranav Shejul. (Asst. Prof. ortho)			
72.	Dr. komal shah (Associate prof, IIPHG)			Good workshop. Best Regards
73	Dr. Sujan Babu Marahatta (Professor MMIHS)	Ajanta		
74	DESIREE FYLER			

75. Dr Roumat Jadhav (Ast. Prof Ortho) RJ.

76 Bipin Nilange

Dr. Sonali Bhojane

77 Anil Gore

→

Devali Kelkar   Prelunch | Post lunch | feedbi
                        — | du
Madhura Kulkarni |
PCCM Pune   No. |

Prof. Dr Sharvari Shukla,
Director and Professor,
Symbiosis Statistical Institute